

The Power of Play:
Game Creation to Enhance Student Learning

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Student engagement can be a constant challenge for faculty, and in recent years, there has been an explosion of recognition of the value of active-learning assignments. In my class, I have tried to take active learning a step further. Pulling on the work of entrepreneurship literature, I have introduced an assignment that not only has students play games but create them. Studies have shown the value of creation, play, failure and reevaluation in instilling students not only with substantive knowledge but also with soft and critical thinking skills that will serve them well in any discipline. In this paper, I shall examine the benefits of game creation for students, the requirements and administration costs of such a project for the supervising faculty, as well as assessment processes applicable to such creative endeavors.

Encouraging Entrepreneurial Thinking: A Personal Introduction

Like many people, I think, when I hear the term “entrepreneurship” I tend to think of business-oriented start-up type activities. However, I’ve recently come to learn differently, and this change has subtly reshaped my teaching in Political Science. My introduction to entrepreneurship began two years ago when I won a place in the IDEA Faculty Fellows program.¹ This program is run through West Virginia University and, as a professor at one of the regional sub-campus in the WVU system, I was eligible to apply. The fellowship is based on proposals to introduce innovation, design, entrepreneurship in the classroom.

My eyes were thrown open to the power of entrepreneurship as an approach to thought, creation and education upon attending the Price-Babson Symposium for Entrepreneurship Educators hosted by Babson College (MA) in January 2019. Babson College is one of the premier institutions in the world to focus on entrepreneurship education. And while much of entrepreneurship is most closely related to business, it is, more fundamentally, about problem solving, creation and innovation. Skills that seem vital to instill in the Political Science – and all undergraduate – students of today.

Two Types of Entrepreneurship in PoliSci Classrooms

There are two variations of entrepreneurship I have found particularly useful for Political Science classrooms: social entrepreneurship and the practice of gamification. While this paper will focus on a project in the realm of gamification, I want to briefly explain the applicability of social entrepreneurship to Political Science education. Social entrepreneurship involves the “sourcing of innovative solutions to social and environmental problems” (Neck et al., 2018, 89). As opposed to more traditional entrepreneurship’s goal of creating profit, the primary mission of individuals and organizations pursuing social entrepreneurship is the advancement of social and environmental goals. I have found this centering of some classes around the finding of solutions to political/social problems to be a fundamental reorienting of a course. Instead of leaving students with the myriad of ways in which politics/society presents difficulties, one can introduce those challenges and switch course to solutions. In acknowledging the challenges and “wicked problems” facing the world but not becoming buried by them, students are provided a platform for becoming more empowered in their political selves.

¹ My thanks to the WVU Provosts Office and the WVU Launch Lab for creating, funding and administering this fellowship program and for opening it up to faculty at the regional campuses of the West Virginia University system.

The second avenue of incorporating entrepreneurship into the classroom is based in the fundamental mindset of entrepreneurial practice. According to Neck et al. (2014), this mindset requires five fundamental skills: Experimentation, Creativity, Play, Empathy and Reflection. [See Figure 1 below]

[Insert Figure 1 here]

Each skill encourages students to think independently and beyond the bonds of what is, to imagine what could be. Students should be encouraged to interact creatively with the course materials. We as instructors should push the student beyond simple content-understanding to creation and experimentation on the presentation of such materials.

Harnessing the Power of Play: A Class Project in Game Creation

In my classrooms, I have begun to incorporate a version of this entrepreneurial mindset approach via a student-led game-creation project. I use this project in an upper-level Comparative Government course (POLS 319).² Instead of the traditional method of games in the classroom, which involves students playing games/simulations already created by the instructor, here-in students actually develop a “game” explaining or illustrating one of the themes, theories or concepts from the course; create a rulebook for the “game;” and play the game with their classmates.

The type of game students can create is entirely up to them. I allow modifications of existing games – with the recognition that slight modifications will yield less stellar grades than whole-sale modifications or new-game creation. Games can be role-playing, dice or board games. They can be computer-based or IRL. This past semester, Fall 2019, I also expanded my concept of “game” to include other creative projects as well – including zines, comic strips, poetry or song play lists. This expansion was extremely successful as it maintained the creation-innovation purpose while opening the playing field to otherwise-inclined students. I will maintain an open-ended concept of “game” going forward, asking students to clarify their path, but not imposing a traditional game on them.

Ultimately, I require two written deliverables in addition to the “game” itself. First, students must provide a rulebook or instructions for their game. I encourage them to look at actual user’s manuals from their favorite childhood – and adulthood – games and to take those as templates. These must be clear enough that if the creating student left the room, others could figure out how to play. This requirement accentuates several key features: rules must be simple, organized, and systemic; rules must also be thorough. These rule books do not, and in most cases should not, follow essay formats but grammar, organization and clarity are still a must.³ The second written deliverable is an essay linking their “game” to the class topic, theme or concept from which it was derived. This essay should be a

² Note: This course – while upper-level in number and assessment – is the first comparative government course offered on campus. West Virginia University Institute of Technology does not have a Political Science major; thus, students in this upper-level class are almost exclusively Political Science minors and History and Government majors. I find this game-creation project perhaps especially relevant to these students as the broader skills learned therein have application far beyond the specific-concept learning of the course.

³ For “game” projects in the more arts/creative realm, the rule book must be an annotated description of the project, walking the user through the content therein. For example, when a pair of students did a Spotify playlist for the American Revolution, they had to provide a mock CD booklet with a description of the songs and the events each song was meant to represent.

more traditional Political Science paper. The Explanation Essay the student to describe their project's origins, and it provides the professor with feedback about the relevance of the "games" project to the course material (i.e. it ensures students are not creating "games" with no purpose vis-à-vis the class).

As an instructor, the biggest obligation to you in such a project is the meting out of time (in and out of class) for the students to create these projects. As the instructions (see Appendix 1) and rubric (see Appendix 2) show, this game-creation project should unfold over several weeks. Students need a chance to conceptualize the project and to put forward versions to test – to identify the problem areas and have time to modify the "game" accordingly. This past Fall (2019), I used the Final Exam period for the class as the Game Day for final presentation. This worked fantastically as we had much more time than a traditional class period. Students rotated around, played each other's games, and I as the instructor had plenty of time to devote to each project.

Secondly for instructors, one must create opportunities for constructive feedback for the "games." I have found that required-attendance Work Days are effective in forcing the groups to be making progress and for providing a venue for non-binding, constructive peer (and professor) feedback. On such days, students are expected to have something with which others can interact; the first Work Day can be largely conceptual, but the expectation by the second Work Day is for a rough prototype of the "game". (As with all projects, the more they have the more helpful the feedback can be!) During the Work Days, I usually provide 10-15 minutes for the groups to get everything organized. Then, students rotate around the room "playing" others' "games". I provide all playing students with a simple two-good-things/two-suggestions slip of paper to leave with the group whose "game" was played. This interactive approach allows the working groups to get direct feedback on their own "games", but it also allows students to see how others are approaching the project – what works and what doesn't – giving them indirect feedback.

Assessing the Power of Play: Impact Based on Student Feedback

Building off the entrepreneurship theories presented above, this project has three primary nexuses of learning benefit to students.⁴ First, students must engage in *creation and innovation*. They must think outside the box. Instead of following a pre-dictated protocol or set of instructions, students must take the leap into a wide-open space of creation. This is, quite frankly, incredibly intimidating to them to start. There is no right answer, and there are so many ways to approach this assignment. Thus, the first stage simply forces students to create their own path and, therein, provide an innovative way to view the subject of comparative government.

This *creation and innovation* process leads into the second nexus of learning: *experimentation and adaptation*. In this realm, students find out that it is okay to fail and that real growth of idea comes not from the initial thought inception but from polishing that idea over the course of multiple iterations. Life is not a one-off, but a series of chances. I think students today can be really narrowed in on doing things right – they want detailed instructions about EXACTLY how an instructor wants something done – they do not want to be wrong. But there is utility in failure. It is the fundamental basis of learning. And

⁴ Some of these conclusions are based on student feedback collected using the short survey provided in Appendix 3.

avoiding action for fear of failure is a problem far beyond the realm of academics and a class grade. Throughout this game-creation project, students experiment; they test out their processes and explanations; they find the weak, unanticipated or complicated areas that need more work; and they adapt their initial concepts to address these points.

Finally, students must practice the very real skills of *application and explanation*. A fundamental part of most fields is the ability to explain yourself, your process and your programs to a variety of people. One must be able to tailor that explanation to those who need to hear it; those who may come with a variety of background knowledge or a lack thereof. In both written and oral settings, this project requires students to create detailed, yet simple explanations of their games and present these in both written and oral settings and to adapt those explanations to the audience of the day.

Student-led “game” projects provide students with a new avenue for entrepreneurial, interactive, creation-based learning. Such projects push students beyond their comfort zones in traditional academic assessment but, ultimately, generate new avenues for student learning. By harnessing the power of play – creation, failure, adaptation – instructors can instill students with skills far beyond the content of the course, and students can realize their own potential for innovation, experimentation, and explanation beyond the structures of simple step-by-step instruction following.

Bibliography

Neck, Heidi M., P.G. Greene and C. Brush (2014). *Teaching Entrepreneurship: A Practice-Based Approach*. Northampton, MA: Edward Elgar.

Neck, Heidi M., Christopher P. Neck and Emma L. Murphy (2018). *Entrepreneurship: The Practice and the Mindset*. Los Angeles, CA: Sage Publications.

Appendix 1: Project Instructions

POLS 319 – Comparative Government

Project 3: Gamification

Assigned: Fri., Nov. 8

Due: Wednesday, Dec. 18 @ 10am

Steps

- 1) Pick a part of governance that you wish to explain
- 2) Create a game – or other creative project – around it...
 - a. What is game “objective”? Winner/loser; collaborative ... what is the end goal?
 - b. Write a user’s manual for game play
 - i. Players, actions
 - ii. Board, cards, die...
 - iii. How does a player’s “turn” proceed...
- 3) Prototype your game/project
- 4) During our Final Exam period (Wed., 12/18 from 10-11:50am), we will “play” the games in class. Round-robin type process.

** Social Sciences department is willing to provide basic supplies. Limit \$20 per group. Department will keep all reusable and any unused supplies we purchase. If you would like to keep you supplies, you must buy them yourself.

Key Deadlines

- Friday, November 8: Project Assigned
- Wednesday, November 20: Work Day 1 (Conceptualization)
- Wednesday, December 4: Purchase Order Due
- Wednesday, December 11: Work Day 2 (Operationalization)

Grading [100 total points]

- Work Days – 15 points each, 30 total
- Written Requirements – 25 points each, 50 total
- Game Play (in-class) – 20 points
- See rubric below

** NOTE: Should you wish move forward with your game, I can link us up with the Launch Lab on campus to see about formalizing, customizing, monetizing it.

Big Dreams: there are several Launch Lab competitions and WVU has a Demo Day in April. If it is good enough, and you’re interested, we can see about polishing with those as a goal.

Appendix 2: Project Rubric

POLS 319 – Comparative Government

Project 3: Gamification

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Grading Rubric

Prior to Game Day: Test Runs		
_____/15	Work Day 1 (Wed., Nov. 20)	Conceptualization stage <ul style="list-style-type: none">• What concept from comparative government are you thinking about addressing• What is your initial thought about how to do that• “Storyboarding” in class
_____/15	Work Day 2 (Wed., Dec. 11)	Operationalization stage <ul style="list-style-type: none">• Have a rough version available of your project (basic layout, rules)• Able to give a test-run
Game Day Preparation		
_____/25	Explanation Essay	<ul style="list-style-type: none">• What is the purpose of your game re: comparative government<ul style="list-style-type: none">○ Identify and explain target/topic addressed○ How does your “game” help explain this topic• Using essay format and language of the class
_____/25	User’s Manual	<ul style="list-style-type: none">• Quality/clarity of writing• Style and formatting• Would it actually work (could inexperienced figure out game)
Game Day		
_____/20	Game Day	<ul style="list-style-type: none">• Clarity, ease• How well did the game work in class• Presentation-type score
Peer Evaluations		
_____%	Peer Evaluation of Input	<ul style="list-style-type: none">• Group member(s) will give you a percent-of-work-share multiplier<ul style="list-style-type: none">○ A+-level work = 100% of project points○ B-level work = 85%○ D-level work = 65%
_____/100	Project 3 Total	

Appendix 3: Project Feedback

POLS 319 - Comparative Government

Gamification Project Reflection

Group "Game": _____

This project is different than more traditional paper/presentation assignments, so I want to know...

- 1) Do you think you learned ***more, less, about the same*** from this assignment than in more traditional ones?

1a) Briefly explain:

- 2) How did this project push you in different ways than a more traditional project?

- 3) How much or how little did you adapt your project between the assigned date and the game day?

- 4) If you could change one (or two or three) things about this project, what would it (they) be?

(e.g. time line, working days; feedback; supplies; groups (or not); final game day format)

May I use your anonymous responses above for research/publication purposes? (circle) YES NO