Student-Created Tabletop Foresight Games as Advocacy

Exploring Alternatives to the Op-Ed Genre in First-Year Writing Courses

Natalia Andrievskikh[1]

[1]New York University (na71@nyu.edu)

Abstract

The author argues in favor of game-based pedagogies in a writing and technical communication classroom. This assignment asks first-year writing (FYW) students to collaboratively create a tabletop game that would educate players about topics related to climate change. The assignment scaffolds writing, research, and communication steps that guide students through the iterative process of composing. The final project includes a research paper and a formal project proposal along with a playable boardgame prototype. As students engage in critical making, they gain a nuanced understanding of their chosen topics, hone critical thinking skills, and develop rhetorical agency. Since this assignment offers an alternative format for public-facing argumentative writing, the author reflects on how game building can help students make persuasive arguments and on the potential of tabletop games as a venue for advocacy. The format of ludic learning (learning through play) also proves a valuable tool for content-based courses, which makes it possible to tailor the game-building assignment to a wide range of classrooms beyond FYW.

Introduction

The assignment asked first-year writing students to work in teams on creating playable prototypes for a foresight game on a topic of their choice broadly related to possible developments of the environmental crisis. As a genre of games that explores speculative future scenarios rooted in current socio-cultural, technological, environmental, and other pressing concerns, foresight games allow students the creative freedom to imagine alternative futures while at the same time grounding them in research and analysis of present-day issues. For this assignment, students designed playable prototypes for tabletop boardgames that would raise awareness of the global climate emergency and educate players about the environmental impacts of their everyday choices. The game-building project aimed to facilitate content learning through various game mechanics (for example, through different categories of cards such as asset, action, or trivia cards, game action choices available to players, built in interactions between players, etc.). The game materials did not need to have fully developed graphics or be technologically advanced: instead, the emphasis was on the content, intended message, and functionality of the playset. The final project also included a short research paper on the game's topic and a formal project proposal.

I developed this assignment to experiment with alternatives for a final course project, which for me up until recently had been an opinion essay (what used to be referred to as the Op-Ed genre before the *New York Times* retired the term in 2021, see Kingsbury, 2021). I had previously assigned other multimodal genres that would invite students to compose a public-facing call to action using digital and visual formats such as public service announcement posters, PowerPoint presentations, or short video essays targeting a specific audience to make a persuasive argument. While the game design assignment similarly focused on multiliteracy development and semiotic

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remediation ("translating" meaning across modalities), I have found that it offers at least two additional pedagogical affordances: introducing students to procedural rhetoric (Bogost, 2007) and creating room to teach writing genres that would serve as paratexts for the project (including workplace communication assignments such as memos to the team, project tracking charts, and product pitches).

It seemed kairotic to introduce the game assignment devoted to the future of climate change in the post-pandemic university and in the year of the failed COP27 climate talks. In the context of climate emergency education specifically, games "have shown to be a viable means to facilitate experimental learning and thereby increase the level of personal and emotional engagement of the game's participants" (Gerber et al., 2021). Games, both digital and analog, "make complex and interrelated problems tangible and are thus suitable to be applied in the context of environmental problems and sustainable development" (Gerber et al., 2021). The gaming industry was at an all-time high during the COVID-19 pandemic since it provided an essential outlet for interpersonal communication (Skwarczek, 2021, June 17). Arguably, tabletop games have also experienced a comeback as a result of the pandemic, which inspired many people to search for ways to re-engage with analog, material formats of face-to-face communication. This surge of user interest has translated into a rise of teacher-scholar attention to the medium of games across the disciplines as educators seek to create a learning community and boost student engagement.

Scholarship Informing Assignment Design

In the classroom, where students often persistently view their work as addressed to the professor despite our best efforts to instill a sense of a "real" audience, the writing process often gets reduced to "guessing" what kind of product the instructor would like to see, which silences students' own voice and agency. In order to create a more authentic communicative context, many rhetoric and composition scholars advocate for a project-based learning (PBL) approach (Bell, 2010; Blumenfeld et al., 1991; Helle et al., 2006; Solomon, 2003). In addition to addressing a target audience, PBL necessitates teamwork, allowing students to practice their communication skills in both written and oral form. Through multiple rounds of researching and sharing information that would inform their project, brainstorming game design as a team, pitching ideas, visualizing and describing prototypes, and writing up game descriptions addressed to potential users, students experience composition and communication authentically.

Arguably, central to PBL is "critical making," a term coined by Matt Ratto and Stephen Hockema (2009) to denote "an elision of two typically disconnected modes of engagement in the world—'critical thinking,' often considered as abstract, explicit, linguistically based, internal and cognitively individualistic; and 'making,' typically understood as material, tacit, embodied, external and community-oriented" (p. 52). Ian Bogost (2013) Bogost offers the notion of "carpentry" to illuminate "the process of making things that help philosophers…pursue arguments and questions." The focus on critique through making helps students understand knowledge as physically relevant, bridging "the gap between creative physical and conceptual exploration" (Ratto, 2011, p. 252) and translating abstract concepts into concrete and tangible formats. As Jody Shipka explains it, multimodal formats facilitate situated learning through tapping into affective modes of learning and recognizing "highly distributed, embodied, translingual, and multimodal aspects of all communicative practice" (Shipka, 2016, p. 253). Recent studies agree that multimodality enhances rhetorical awareness, supports transferrable multiliteracy skills, and increases student agency (Cedillo, 2017; Dunn, 2021; Gonzales, 2018; Palmeri, 2012)

Tanya Clement (2012) lists the crucial components that promote student learning outcomes in a PBL classroom: "critical thinking, commitment, community, and play" (p. 387).

In accordance with Clement's findings, the game assignment framed writing and making as collaborative endeavors in which creation of the final project was not an end goal, but a tool to enable productive—and playful—engagement with interactive formats for critical thinking purposes. As critical game studies have shown, ludic formats offer "rich pedagogical opportunities" (Shultz Colby, 2017, p. 59). In particular, Ian Bogost (2007) suggests that games enact a new kind of rhetoric—what he terms "procedural rhetoric," or "the practice of persuading through processes" (p. 3). In other words, games can serve as an alternative format to build persuasive arguments that reach audiences in unconventional ways. This view allows us to imagine a game as a text: an interactive, multimodal, non-linear immersive narrative that constructs meaning over time through the user's experience of play. As any other text, games can therefore be used as classroom materials to analyze, interpret, critique, imitate, create, review, and revise.

In "Game-based Pedagogy in the Writing Classroom," Rebekah Shultz Colby (2017) interviewed 24 instructors within the fields of rhetoric and composition and technical writing about their experiences teaching (with) games. Her findings suggest a variety of roles that games can assume in writing courses, from serving as objects of rhetorical analysis, to illustrating complex theories, to creating alternative venues for meaning-making. Designing a game requires writing what Shultz Colby calls "paratexts": various written communication genres involved in design and dissemination. In a technical writing classroom, for example, a game design assignment offers a chance to practice professional writing formats such as usability testing reports, market research, user-facing tutorials, FAQ guides, and game descriptions, among others (p. 64).

As a product of culture, games can both reinforce and contest prevalent cultural norms. In her influential study of radical game design, Mary Flannagan (2009) ponders whether games (and the concept of play, more generally) can "not only provide outlets for entertainment but also function as means for creative expression, as instruments for conceptual thinking, or as tools to help examine or work through social issues" (p. 1). She believes in the subversive potential of games and suggests that critical play—that is, play "characterized by a careful examination of social, cultural, political, or even personal themes that function as alternates to popular play spaces" —can promote change (p. 6). Critical games, therefore, shift the focus from interactive entertainment to interactive learning and make games an especially impactful tool for activism.

Other recent research on board games as advocacy suggests that the learning that happens during critical play facilitates argument-making for social action (Bogost, 2007; Gee, 2003), although admittedly, the pedagogical implications of game design as argument-making need to be further theorized and studied. The potential of board games to raise awareness and initiate critical conversations about social justice needs more attention, especially considering the highly participatory, interactive nature of ludic formats. Shultz Colby (2017) explains that "As complex systems, games teach students strategic problem solving but, even more importantly in a world of increasing complexity and interconnection, systemic thinking: how one person's actions can affect the entire system" (p. 56). This focus on individual responsibility and systematic interconnectedness is crucial in teaching public-facing advocacy genres.

Assignment Structure and Sequence

The assignment took place over the final six weeks of a first-year writing course. Prior to the final project, students engaged in traditional research and writing activities: the first essay in the course focused on close reading and representing complex texts and thoughtful, analytical work with textual evidence, while the second unit provided opportunities to practice writing as constructing a conversation and introduced students to database research. By the final unit, students had gained practice in finding, selecting, and working with multiple sources, and were

prepared to tackle the research requirement of the team project.

Teams were limited to three members to make the work easy to coordinate. I asked each team to put together an accountability agreement, committing to contribute equal effort. The teams were also required to start a project-tracking document in a shared Google folder where they assigned tasks and kept track of work completion. Much of their collaborative work took place during class time to ensure equal participation by all team members.

The graded components of the assignment were an individually written Research Report; a collaboratively written Project Proposal which included a problem statement, a synthesis of theoretical foundations for the game, a project description addressed to potential producers, and a game rules section addressed to players; and a team presentation of the game along with a set of collaboratively designed materials (cards and a board). Assessment was not based on the material or visual qualities of the design: as Ratto and Hockema (2009) explain, "Critical making emphasizes the shared acts of making rather than the evocative object. The final prototypes are not intended to be displayed and to speak for themselves" (p. 53). For our purposes, the game prototype needed to have functional elements and easy to grasp rules to enable content learning through play, while polished, detailed design of game materials was not the end goal.

The unit can be roughly split in three stages: brainstorming and research (Weeks 1 and 2), invention and play-testing (Weeks 3 and 4), and revision and presenting (Weeks 5 and 6). However, viewing these tasks as distinctly separate would be both counter-productive and inaccurate: since both research and composition are iterative processes, students revisited the earlier tasks during the later stages of work on the project, for instance, doing more research in response to a newly uncovered gap in understanding, or going back to the invention stage after realizing that some of the game mechanics did not work effectively. Writing the project proposal took several steps: for example, students wrote the theoretical foundations section after we read and discussed assigned readings on game design as advocacy; the section describing the rules and mechanics for their game was assigned later, after they play-tested and finalized the rules, and so on. All the written components of the project required revision at the end of the unit to reflect the changes made as a result of peer review and development of the team's vision for their game.

During Stage 1, students were introduced to the assignment and its underlying belief in games as advocacy. Since this approach was new to the students, we devoted time to read and discuss excerpts from the foundational texts: *Critical Play: Radical Game Design* (2009) by Mary Flanagan and *Persuasive Games: The Expressive Power of Videogames* (2007) by Ian Bogost. We also read selected sections of *The Rules We Break* (2022) by Eric Zimmerman, a textbook on game design that offers practical steps for invention. *The Rules We Break* turned out to be an especially fitting choice for teaching game design in the writing classroom because of its attention to the social and process-oriented nature of game invention; in fact, I often found the language that Zimmerman uses to describe design and peer review practices directly applicable to writing instruction. Pointing out this parallel to students helped me emphasize the affinity between making and writing and demonstrate the value of peer feedback for all types and formats of composition.

At the initial stage, students spent time collaboratively brainstorming their games and did preliminary research, for which each student researched a different aspect of the topic to report to the team. For example, one team member would be responsible for researching background information, another would review the public conversation about the chosen controversy and identify stakeholders in the issue, and the third member might focus on the questions of policy. Students then shared their findings with the group in a research memo with annotations to the sources. Such setup approximated what research might look like in collaborative workplace

settings: the communicative purpose of the memos was to share knowledge with the rest of the team and to collectively create a more nuanced, well-rounded understanding of the topic.

Stage 2 of the project mainly focused on invention and gathering formative feedback on both the game design itself and the supporting documentation. Students collaboratively wrote the theoretical foundations section of the project proposal to synthesize the theory about critical play and procedural rhetoric and to reflect on game design as argument-making. At this stage, I aimed to give students as much exposure to various examples as possible, including board games that students selected as examples of effective and clear game mechanics. We studied examples of existing foresight games such as *2030 SDGs* by Imacocollabo, *Future Geoscientists* by Strivens and Hadler (both of which specifically address environmental issues), *The Thing from the Future* by Situation Lab, *Peek* by Raskob and Salinas (both of which explore social issues in a speculative future), and some others. Similar to how writers exploring a new writing genre benefit from exposure to models, these examples also introduced students to the range of possibilities and offered model structures. We also analyzed examples of public-facing descriptions of games and considered how these descriptions framed the game's message to the audience. Invention and play-testing took place parallel to collaboratively writing various sections of the proposal.

During Stage 3, teams revised the proposal and research documents and the game materials based on feedback. The two last classes were devoted to formal project presentations during which students pitched their game design, explained the problem that the games aimed to tackle, and demonstrated the games in action. Stage 3 incorporated reflection activities to help students recognize the connections between material and conceptual exploration and observe parallels in the multi-step, revision-based processes of making and composing.

Successes and Limitations

The assignment was implemented successfully in the Fall 2022 first-year writing course at a large R1 university. Unexpected, but rewarding experiences included productive pedagogical collaboration with the Office of Sustainability and colleagues and graduate students from the Game Design program who offered feedback on course materials, suggested additional resources, and agreed to visit one of the classes to play-test students' games. Having guest visitors helped students recognize their coursework as relevant to the larger community outside the classroom. I also encouraged students to play-test games with their friends and report to their team whether the players could make sense of the intended message of the game. Such multiple rounds of sharing the games in progress ensured that students' projects reached real audiences.

As a result of this unit, we had 5 team-created game prototypes. *Dish It Up* challenges players to consider the environmental footprint of their diets. This game relies on set collection, a game mechanic used, for example, in *Scrabble.* Players race to create three recipes by collecting ingredients; they can choose or pass on a card on their turn. The cards have varied sustainability value (e.g., plant-based ingredients have a higher sustainability score than meat, organic ingredients are valued higher than non-organic, etc.) Players can also gain sustainability points if they reuse ingredients, cutting down on food waste. The player with the most sustainability points in the end wins. *City 2070*, a game devoted to imagining possible futures of urban sustainability, borrows some game mechanics from *The Game of Life*. Players move around the board and make choices whether to invest in sustainable projects and earn "Leaf Points" or to save their assets. When someone lands on a Chance field, players draw an event card (natural disasters, government reforms, etc.) that either multiplies or depletes everyone's Leaf Points and assets. There are also Trivia fields with challenge questions about urban impact on the climate. At the end, the player with the most Leaf Points wins. *Going Green* is a game about everyday choices (commuting by bike or driving, recycling or burning trash, and so on). Players use a spinner and make a choice

based on whether they want to take either the faster, environmentally harmful, or the slower, environmentally friendly option. There are also Event fields that either punish or reward the players' previous choices. As the authors explain, "We hope that players will learn that making small decisions throughout the game will have consequences later in the game, just like in real life." Two more games, *Farmer Frenzy* and *Green Uprising,* imagine sustainable farming of the future, with a setup similar to *Monopoly*.

Arguably, students ended up doing more rounds of research (and more purposeful discussions of their findings) than they typically would for a FYW course paper. The assignment also included conventional text-based components that built on the previous course writing assignments. And yet, students did not readily recognize their work on the games as "legitimate" academic work of research and writing: during in-class reflection time, some students questioned whether game building was a "serious assignment." It took deliberate reflection prompts to guide students to see how the iterative process of brainstorming, invention, composing, play-testing, and revising a game was similar to the writing process and that the assignment allowed for practice of crucial writing skills. Since I was purposefully trying to provide an environment that would extend student work beyond "writing for the professor," it took me by surprise that students appeared to have deeply seated stereotypes about what "counted" as academic work, and that they discounted work that is not "boring" as not "serious enough" to be legitimate in academia.

From what I observed as I was teaching this unit, the assignment encouraged students to take creative risks and explore complex ideas through new formats, learning to view composing from the position of authority. Although some students initially expressed lack of confidence about their ability to successfully complete the project, their enthusiasm and engagement was high throughout the progression and the level of confidence increased as they were able to recognize zones of familiarity within the seemingly new task at hand. While being a part of a course assignment, building a game offered students a possibility to reach real audiences beyond the classroom walls. Students learned to recognize their research and knowledge making that happened in the classroom as having potential impact on the outside world, which increased their motivation.

The limitations of the assignment design mainly came from the difficulties in locating the pedagogical resources to support instruction of what might still be an unfamiliar format for many writing instructors. Rebekah Shultz Colby (2017) follows her discussion of game-based pedagogy by pointing out that there currently are "very few resources for teachers within rhetoric and composition and technical communication on how to teach writing with games" and calls for further teacher-scholar research on "wider game-based pedagogical practices" (p. 58). It is especially important to consider the affordances and limitations of game-based writing assignments when working with a diverse body of students, including ELL writers, neurodiverse learners, and students from varying socio-economic backgrounds. The ludic format has the potential to appeal to diverse audiences, offering innovative ways to practice composing. As a result of conceptual exploration and communication of complex messages that takes place in the process of creating a game, students practice transferrable skills needed to express complex ideas in writing.

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ASSIGNMENT
Foresight Game Design as Advocacy

Learning Objectives
By completing this assignment, students will be able to:

- identify, research, and represent to an outside audience a significant socio-cultural problem of students' choice
- demonstrate audience awareness in public-facing genres by clearly communicating the purpose of writing and choosing appropriate rhetorical means to make arguments
- practice critical thinking skills using a hands-on critical making approach
- experience designing a multimodal artifact that functions as a call for action
- practice the professional writing genre of proposal to pitch an idea

Assignment Overview
Our theme for this progression is climate change mitigation and imagining the future(s) of environmental change. You will work in teams of three members to collaboratively create a board game designed to explore imaginary futures of climate change. You will research your topic, brainstorm the project, collaboratively write a proposal, and compose and peer review the game design. As a game, it should be dynamic, imaginative, and fun; however, we will aim to shift the focus from interactive entertainment to interactive learning. Your game's goal will be to educate players about climate change and inspire them to reassess their daily choices that impact our environment.

Rationale
We have long known that games (both digital and analog) have far more functions than simply serve as a fun activity: they transmit cultural knowledge, reflect societal values, and reinforce social norms. Gameplay is often designed to embrace and uncritically perpetuate problematic ideologies such as colonialism, militarism, or sexism (think about combat video games, or gender roles in games, etc.) However, the opposite is also true: games have the power to help us critically reassess and adjust our values and to educate players through the process of playing.

Recent research in critical game studies shows that games can create impactful learning and community-building experiences, which makes board games a great medium for critical thinking and advocacy. You will explore the potential of tabletop games to make a persuasive argument that would encourage players to critically think about their environmental footprint and moves them to action.

Required components of this assignment
Research Report
The goal of the research report is to inform your team about the issue that your game will focus on. You need to understand more nuances about this issue in order to design possible future scenarios for the game.

- Each team member will research and write up a research report on a designated aspect of the topic (the team assigns which aspect of the issue team members will

research)
- Each research report needs to include at least 4 sources of different kinds (academic, journalist, opinion, background)
- Each research report should be at least 4 pages long and should follow MLA format, with the Works Cited page (not included in the 4-page count)
- Each team member's research report will be graded individually (10% of your final grade for the course)

Proposal

Address this document to potential publishers or organizations interested in possibly adopting your game: your goal is to convince them that the game is effective, entertaining, and well-designed and is ready to be presented to larger audiences.

- Collaboratively written
- 4-5 pages
- Include a theory section where you engage with the class readings about critical play to provide a theoretical foundation for your proposal
- Include a problem statement section to represent the specific issue that the game will address
- Articulate the educational goals of the game (What do you hope the players will learn about the issue?) Make sure to explain *how* the game would work to achieve the educational goals
- Clearly describe the proposed game format and rules
- Reference your influences and inspirations: give credit to the game(s) that served as the model(s) for your project
- Clearly state which components of the game would need to be professionally produced (e.g., how you envision the graphic design of the cards or the board; which elements of the game would need to be included in the printed version, how many elements are included in the set, etc.)

Game Materials

This includes the collaboratively created elements of your game (e.g., cards, assets, tokens, board, etc.). Game materials do not have to be "professionally" designed: you are creating a playable prototype. In other words, the visuals need to be functional, but do not have to look perfect. You will not be graded on technical quality of the game pieces, but on how well they function in the game.

Additional (ungraded, but required) documents:

Teamwork Agreement and Project Tracking

- Collaboratively written
- Should include a chart to keep track of each member's contributions and rules for teamwork and accountability
- Who is responsible for which part of research
- How the work on the project is split up among the team members
- Should include notes from each class meeting and team meetings outside of class.

Final Reflection

- Each team member writes their own reflection
- At least 2 pages long

- Reflect on your team's work process and accountability
- Reflect on your learning of critical thinking, research, and writing skills
- Talk about the rhetorical choices your team made in creating the game
- Tell the story of the idea and your process, including revisions
- Include self-assessment of effectiveness, clarity, and educational potential of the game that your team created.

Revision

You will submit a draft of all written documents first and will later revise and resubmit based on instructor and peer feedback and the final version of your game design.

Grading

- Research report: 10% of your final grade for the course
- Project Proposal: 10%
- Game Materials and Pitch / Presentation: 10%

Supplementary Material

For supplementary material accompanying this paper, including a PDF facsimile of the assignment description formatted as the author(s) presented it to students, please visit https://doi.org/10.31719/pjaw.v8i1.169.

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