Reflection on A Design Process for an Educational Game on Mindful Drinking

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EXTENDED ABSTRACT
This paper describes the design process of a research-based, applied video game in development at a public state college in the United States. The goal of the game is to educate incoming first year students on responsible use of alcohol (the design team uses the term “mindful drinking”). The design team and other stakeholders on campus hope to eventually use this game in place of the current mandatory training used by the college.

The process of this project can be broken down into several components, including designing applied games for social impact, development processes of small teams, interdisciplinary collaboration, and game design pedagogy/games education. Even though there is substantial research in each of these areas, our project has characteristics that we did not find together in other projects that we have surveyed. We therefore think that this case study offers a unique contribution to the conference and literature.

First, in our game’s design we use a combination of interactive narrative and minigames, an endogenous approach (Athavale and Dalvi, 2019) to addressing learning objectives, and an authentic student voice in the process of writing the dialogue. The narrative immerses players in realistic scenarios related to alcohol that first year college students might encounter. The presentation of the narrative uses similar conventions of the visual novel genre. It presents choices to players, some of which branch the narrative slightly before "folding back" to the central narrative. The mini-games allow players to learn and test important skills. In the results of our playtests so far, students have found the characters to be mostly relatable and the scenarios authentic and meaningful.

To decide which aspects of the game should be represented through narrative and which through mini-games, we analyzed the learning objectives provided by our campus stakeholders through the lense of learning mechanics (Clark et al. 2016). For example,

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one set of related learning objectives involves "standard drinks": Defining a standard drink, the challenges of counting standard drinks, and the ability to determine how much alcohol one has consumed. A sixteen ounce red plastic cup is commonly used at college parties, but the language about what constitutes “binge drinking” is commonly communicated in terms of “number of drinks”.. Well, how many drinks are in that red cup? It depends on the concentration of alcohol, which can vary widely, especially when mixed drinks are served (as is common at college parties). Because of this ambiguity and because the red cup has ridges that allow for cursory measurement, the game addresses these learning objectives outside of the narrative in a playable minigame. This mini-game asks players to pour a “standard drink” of a variety of alcohol types, guiding the player when they inevitably get the first attempt wrong. We thought it was important to show how difficult it is to determine what one drink means in the red cup. In the results of our playtests so far, students and even non-student adults have gained knowledge about this important aspect of mindful drinking, and most have found the game enjoyable.

Second, we are an interdisciplinary team of faculty and undergraduate students, initially with limited experience taking on a project of this scope. This collaboration is at the heart of the product and process. Team members across disciplines have worked together to learn from each other in order to effectively work on the project, for example, learning how to write code, role-playing the script out loud to test for authenticity, and designing a consistent narrative structure. Even as each individual team member’s roles and strengths become more clearly defined, the team still makes key decisions together.

To ensure that the game is representative of the college student body, we have gone through several revisions of character artwork, playtested the game and conducted several focus groups among students and administrators from diverse groups and organizations. As the list of campus stakeholders has increased, we have continually adjusted our game’s design to ensure that it would continue to read as authentic to students but also was acceptable to the offices responsible for student life on campus.

Finally, getting our project off the ground required substantial effort. Faculty in our division do not have mentored research course designations, and faculty college-wide are contractually allotted a small fraction of their time to dedicate to scholarship (the vast majority is allotted to teaching). Because of these and other constraints, we have found that a sustainable model for interdisciplinary collaboration requires creativity, dedication, and a willingness to think long-term. For those looking to initiate similar projects, advice given at the 2019 Game Developers Conference Educators Summit (Consalvo et al., 2019) confirmed our experience: if a games program is just getting started or has limited resources, a good way to build a foundation is to create a community of colleagues across campus who share an interest in games. In this way, an institution can both build on its existing strengths and forge a unique scholarly identity around games. This shared interest in games and interactive media is where our project started, and over the past year and a half, we have used a combination of internal grants, state grants, funding from relevant schools and departments, and independent study designations to give more than ten students the opportunity to work on the project so far. We have also learned to work within the rhythms of the semester and summer months, setting feasible goals for each period and adjusting them as needed.

To conclude, this paper discussed the design process of a research-based, applied video game in terms of the game design decisions made by the team, learning to work across disciplines and in an interdisciplinary context, and creating a sustainable research and production structure at a primarily teaching focused college. The talk will elaborate on

each category and also share relevant design considerations and preliminary data collected in the intervening months.

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