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Games and Storytelling for Design Foundations

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Today a great deal of our lives has been co-opted by games for either entertainment purposes or as a function of the societal marketplace. Whether we are playing a game of *Pandemic* at the table or acquiring points for brushing our teeth with a new electric toothbrush that tracks user input and rewards us through an app with even more merchandise, the gamification of our daily routines and the narratives that are designed to support them is immense. [1][2][3] When considering the impact that games have on our day-to-day activities, Game Design and Storytelling are natural points of departure when teaching Design Foundations to a generalized audience of beginning students with evolving interests in the design of spaces and objects, as well as digital, print and time-based communication projects. [4] Because of the diversity of the students' interests, our goal is not to teach game design per se, but to contextualize foundational knowledge through a 'playful' process that students already engage in (and are engaged by) every day. [5] Game Design and Storytelling also serve as useful vehicles for meeting our primary course objective: a collaborative application of visual feedback to interactive, spatial, temporal, and experiential media. These shared experiences (and in particular the development of them) both accelerated and enhanced student learning in our classroom while yielding a high level of engagement that was critical to its success.

This visualization course for design foundations is organized to maximize the use of games as a medium and storytelling as a vehicle to contextualize content and articulate vision. More than a decade of experience in the 3D animation and video game industries informed the instructors about how to make the most of what these types of practices have to offer beginning design students.

The course was designed to include a series of progressively complex assignments that focused on storyboarding and color keys, character design, and game design and provided compelling opportunities for students to build their design skills in the areas of visualization, collaboration, and iteration. By situating the learning objectives in the context of products and activities that students seek out and engage as part of their everyday lives (and by focusing on play and making it fun in the classroom), we observed that student investment of effort in skill development and critical thinking advanced in a successful and significant way. This paper will analyze a series of student outcomes from the cumulative course curriculum and it will discuss the successes and areas for improvement that were discovered.

Assignment 1 – Storyboard and Color Script

For this first assignment, students are required to create a storyboard and color script, guided by the following three learning objectives:

- 1. Learn how to tell story visually using camera faming, angles, and movement
- 2. Use of color to communicate story effectively
- 3. Application of the 3-Act structure

A storyboard is a sequence of drawings, typically with some directions and dialogue, representing the shots planned for a movie or television production. Building upon the storyboard, the color script maps out the color, lighting, focus, emotions and mood in a film. Together, they create a sequence of images that express meaning through perspective, movement, angle, intent, and color.

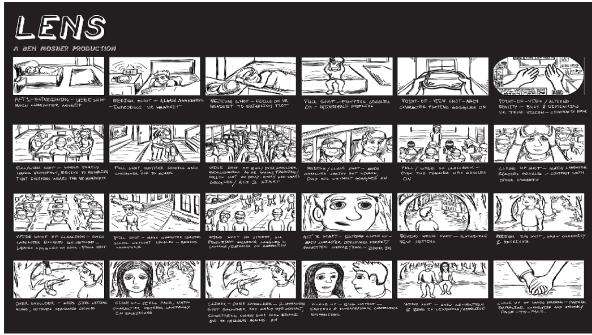


Figure 1 Storyboard, Benjamin Mosher, 2018.

The learning outcomes for this project are: (1) to understand the power of storytelling, (2) gain knowledge of how to tell stories effectively, and (3) apply color to communicate emotion.

The following two images are examples of a storyboard and its color script. In addition to all the art, the story was also created and written by the same student.



Figure 2 Color script, Benjamin Mosher, 2018.

Assignment 2 – Character Design

For this second assignment, students build upon their understanding of the 3-Act structure, and develop a narrative/history for a character of their choosing. Following the learning objectives for this assignment, students will:

- 1. Design a narrative and weave its story into the process of creating a character or place
- 2. Learn how story reveals a character's motivation, what they do, and who they are
- 3. Visualize concepts and narrative in the design of something that is tangible

The character design process starts with the script (or in our case, the narrative) being distributed, the words enclosed describing what a character is like. Artists then complete hundreds to thousands of drawings of what they think a character should look like based on these. Directors then select the images that best fit the vision and then are developed to become a more finalized character.

The learning outcomes for this project are: (1) to learn how to apply the design process to the visualization of a narrative, (2) how to visualize abstract concepts, (3) discover the interplay between narratives and character, and (4) how to develop a character that 'lives' in that story and is believable.

The following is an example of a character design created by one of our students.



Figure 3. Character design, Tessa Wheeler, 2017.

Assignment 3 – Analog Game Design

For the third and final assignment, students manufacture analog tabletop games by designing a narrative, its aesthetic, and accompanying mechanics (or rules). The learning objectives for this assignment are as follows:

1. To bring story, aesthetics, and mechanics in line and in support of one another

- 2. To isolate and iterate within complex systems
- 3. To learn the value of collaboration, evaluation and iteration

This assignment builds directly on top of the previous two assignments in how it employs narrative and aesthetics to describe different game states. With the addition of game mechanics, students design how various game states are maneuvered through via interaction and play. Emphasis is also placed on 'meaningful' play as students distinguish their work from toys, puzzle, and simulations.

The learning outcomes for the final assignment are: (1) to learn the power of collaboration and the importance of testing through evaluation, (2) understand the structure of systems and see them more holistically, (3) see how small changes in larger systems manifest themselves, and (4) understand the interplay between mechanics, aesthetics, and narrative through game design.

The following three images are examples of completed work from Assignment 3.



Figure 4. Game design, Cain Lanker, Laura Lenhart, 2017.

The high quality of collaboration that we saw students engage in throughout Assignment 3 has prompted us to look at ways in which we might find opportunities for collaboration in the other assignments as well. Furthermore, the feedback we have received from students overwhelmingly supports a more collaborative working environment in terms of discovering what can be achieved when working together.

In conclusion, the overall student experience gained exposure and insight into non-traditional design disciplines that are absolutely design-centric in their process. By widening the scope of how and where the design process can be applied to areas such as narrative design, character design, and game design, students learn to abstract and apply the design process into an array of modes. By folding story into the design process, students learn how to better contextualize their projects and provide them with deeper meaning. Lastly, as game design fosters collaboration, the resulting 'playfulness' promotes a messy, interactive process that intensifies the evaluation/iteration loop, prompts students to take more risks, and enriches the overall student experience.



Figure 5. Game design, Andreea Costinescu, Kelly Patrick, Ethan Newburger, 2018.

References

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