Game Design Lesson Plan

Luke Nihlen

http://nihlen.us

Learning Objective

Learners will be able to discuss a few basic issues in game design and analyze their impact on game play. Students will understand how to design a simple game and give feedback on that game design. They should also see how repeated play makes a game better, and recognize that it is a process of iterative refinement that makes good games.

Context

This is an activity kit for exposing students to concepts in game design. It is suitable for students of any age although modification may be required for younger students. This activity requires a minimum of an hour but may have a take-home component in that situation and can feel a bit cramped. The session can run as long as a half day if desired. Classes as small as two or three students can work, and as the groups benefit from instructor attention classes over 50 will find the instructor feeling stretched a bit thin. Students work in groups of two to four. Larger groups can work but may need more materials.

I find this exercise useful in classes focused on video game creation because it separates out the issue of game design for study in a context that requires very little related learning to approach. Game development students are often wrestling with learning new technologies and this helps them to get their "creative juices" flowing and remind them that they are there to make games first and software second. If you find another context which this exercise is useful, please let me know!

Materials Required

You will need some commonly available and inexpensive gaming supplies such as decks of cards, dice, coins or other markers/counters, paper, etc. Make sure to have sufficient supplies for each group to have something to use.

You will also need a few copies of the included feedback form for each team.

For groups stymied by the initial challenge I usually bring a book or two of rules for common card and dice games and suggest they browse it for inspiration or take a game from the book and modify it in an interesting way.

The Challenge

Design a game playable by two or more adults that can be completed within the space of ten minutes. You may use **at most** one of the game materials provided by the instructor, and all the paper that you wish. The completed game design must include a rules document that describes completely how to play the game, as well as any other materials necessary to play the game. Games should be relatively easy to learn how to play.

Not The Challenge

Students may feel defensive about their visual arts skills. Remind the class that the games will be evaluated on game design alone, and that the artists in the class should not squander their time on presentation *when the game is very likely to be redesigned at least once*. This is rough draft being produced. The challenge is not to design a visual work of art.

The challenge is also not to produce the next Monopoly in ten minutes. These game designs are going to be very rough. Emphasize throughout the exercise the importance of repeated play and refinement to making a quality game design. This challenge is quite a tall order so remind students of the learning objectives.

Schedule

10 min. – Introduce learning objectives, field initial questions, introduce challenge, separate in to groups, gather and distribute materials.

20 min. – Individual group work. Teacher facilitates. If groups are stuck they might think of a game that they like with materials available and then modify it. If stuck on how to modify the game recommend they analyze their favorite card/dice game and then take one of the evaluation criteria and maximize or minimize it and see how that changes the game. The temptation will be for this to stretch longer but explain that they need only produce a rough draft.

15 min. – Go over the evaluation form and explain the criteria with example games. Feel free to use my slides for this or make up your own. At this point the next activities can be take-home. I don't introduce the evaluation form right away because I don't want student's initial designs to be "tuned" to the form. One way to teach the form is to evaluate a well-known board or card game.

15 min. – Groups play their own game and evaluate it by filling out the form. Any changes to the game design are made and documented.

15 min. – One person remains in each group to play their game with someone from another group. The rest of the group leaves to go play other games in other groups. All players fill out the evaluation form and may offer suggestions to other groups about game design.

5 min. – Wrapup. If this is part of a video games course, make sure to emphasize that this rapid prototyping behavior can benefit video games too. You might find it useful to mention that most video game designs can be pen-and-paper prototyped in creative ways.

Feel free to repeat the intra and extra-group play sessions as many times as is educationally useful. Another fun take-home assignment is to ask students to play the game with family and friends and gather their feedback with the feedback form.

The Feedback Form Explained

I'll explain fields as needed in order of appearance. Many early game designs tend to run long so we ask players to document their play time and if they were able to complete the game or not.

The qualitative indicators just allow for people to localize the game within a few different spectrums of game design. They are entirely subjective and are mainly to provide perspective on how the game is perceived. The first one, the fun-not fun spectrum, is obvious. Make sure that students provide at least a sentence explaining each of the spectra.

If there is a broken part of the game mechanic document that was uncovered by the players they have the opportunity to document it in the following section.

Next is the opportunity to talk about the learning curve on a game. If a game is harder to learn that doesn't necessarily mean that it has a bad design but it certainly makes the game less approachable and more difficult to play within 10 minutes!

The next few spectra are "balance" spectra. When tuning a game design you may be looking for a balance between these different dichotomies that I've presented. The balance may not be right in the middle for each. Consider these as axes in which to locate a game within. Examples of each extreme are provided on the form.

A game of pure logic can also be said to be completely deterministic. In other words, if two players were to make the exact same sequence of decisions in two different games, those two games would have the exact same outcome in a completely logical game. Chess is a good example of this, and a chess game can be uniquely recorded by the move sequence of each player. On the other extreme from logical games are chaotic games, or games that rely solely on chance, such as a coin toss (disregarding cheating). Regardless of the decisions made by individual players, the outcome is always random.

Chaotic games may frustrate certain players because they perceive these games as requiring no skill. However, players may also like games that are too logical because they allow absolutely no chance for less skilled players to beat a more skilled player, barring human error.

When talking about simplicity or complexity we are referring not to the rule set but to the *state space* of the game, that is, the sheer number of different possible configurations of game play elements in that

game. Overly simple games may bore players quickly, but overly complex games tend to be more difficult to learn.

Lastly we address the issue of rule balance. Games with too many rules tend to be confining and less fun because more time is spent dealing with the machinery of the game then in “having fun.” Then again, games with too few rules may feel undirected or even missing the point.

Reference

Rules of Play : Game Design Fundamentals, Katie Salen and Eric Zimmerman, MIT Press 2003.

Game Design Feedback Form

Your Name:_____ Game Name:_____ Game Version:_____

Play Time:_____ Completed Game (circle one)? Yes No

Put a mark indicating how fun this game was for you to play:

Not Fun_____Fun

Why?

Was there ever a time during play when the rules were unclear or contradictory? Yes No

If yes, what was going on in the game and what did you decide to do?

Is this game easy to learn? Yes No

What might help make it easier?

Mark where you think this game lies between logic (like Chess) and chaos (like a coin toss):

Logic_____Chaos

Does that need to change? Why or why not?

Put a line where you think this game should be thought of in terms of complexity. Is it more simple (like Tic-Tac-Toe) or more complex (like Go)?

Simple_____Complex

Does that need to change? Why or why not?

Indicate how directed your game playing was. Did it feel too much like an algorithm to follow or too much like “just art”?

Overdefined_____Undefined

Does that need to change? Why or why not?

Please put additional feedback for these designers here.