

Game Ideas

Things to keep in mind:

There are a few things to make sure we consider in terms of game ideas.

Firstly, (most importantly), how well does the game facilitate a means to provide the player with multiple choice questions in a way where it contributes meaningfully to the gameplay of the game while also actually teaching the player the content of the courses? This is priority number 1 and should influence most if not all of our design decisions.

Secondly, how do we make our game enjoyable to play? It's important to make our game fun, as we want this to be a way to allow the players to form an intrinsic motivation in order to learn the material in the courses. Some things to consider here are what our average target demographic is - it's likely that the people who would be doing these courses to begin with are Computer Science students, so it's important to keep that in mind when picking our genre, setting etc. Additionally, it's important not to make the questions *too* intrusive to the gaming experience, lest the game no longer feels like a game and stops being enjoyable.

Third, can we actually achieve it? It's important not to put too much on our plates if we're planning on making a product we can ship within this university year - but we should try to be as ambitious as possible.

Idea 1 - Star Trek Adversaries-like game

So the initial brief had this example. By my understanding, it's a card game in which players build an intergalactic empire, expanding by winning strategic battles. The plan here is to ask our MCQs to the player in order to unlock the cards to use in battle.

Advantages:

- Unlocking additional cards is a good motivator
- We can draw some parallels to mobile game ads - having a pseudo-optional condition to unlock new cards allows the player to 'choose' to answer the questions, which feels a lot better on the players' side when compared to being forced to answer them to progress.
- A sci-fi setting fits our target demographic quite well, and our Computer Science based questions fit well for an environment like this. Perhaps we can even incorporate the questions in such a way that questions about certain topics are asked in the context of the game?

Disadvantages:

- It's unclear what the core gameplay loop is. What is there for a player to do after they unlock all the cards? And how do we keep asking them MCQs?
- It's likely that this will have to be a multiplayer game, which introduces ethical concerns when collecting personal data about users and also challenges in implementation.

- Card games are generally live-service games, as developers need to keep adding new and interesting cards in order to keep players interested. This may not fit us very well - we will only be working on this game for a few months.

Idea 2 - Adventure Game (Like Zelda/Pokemon)

The idea here is to have the player explore a 2D world in order to achieve some overarching goal, encountering enemies and engaging with them in non-violent turn-based combat. The player will need to answer questions in order to build up a skill tree required to progress in areas of the game and enhance their abilities in combat.

Advantages:

- Building up a skill tree offers the player a sense of progression in the game alongside their progression learning the content on SkillsBuild.
- The player can choose what type of questions they are asked based on what kind of skill they want to learn in the game, which adds a sense of cohesion between the questions and the game - they won't feel like separate entities.
- The game is single-player, so there are no ethical concerns with data collection and no effort required building online infrastructure
- An overarching story would give the player something to get attached to and continue playing the game, with the idea that, by the end of the story, the player has accumulated all the knowledge from the courses.

Disadvantages:

- We would need to write a story.
- A story game lacks replayability, so you do not have an incentive to play the game again in order to revise the content, even though focusing on different skill trees could offer a semi-replayable experience.

Idea 3 - Roguelike Card Game (Like Slay the Spire)

The player begins with a basic deck of cards and progresses through a set of predefined (or random) fights that increase in difficulty, with the end goal of beating a final boss. At the end of each fight, players can draft more powerful cards into their deck to make themselves stronger. Cards have themes which, in order to be picked, require the player to answer a question corresponding to that theme.

Advantages:

- A replayable game can be used as a revision tool to continuously reinforce a player's knowledge of the SkillsBuild content

- Gameplay loop of a strategic card game is thematic with the idea that the game is educational, and appeals to people who like to think about their options and optimise their decisions - ideally our target demographic.
- The game is single-player, so there are no ethical concerns with data collection and no effort required building online infrastructure
- Players can choose what type of questions they're asked based on which card they wish to draft to their decks (see above justifications for why this is good).

Disadvantages:

- Players do not get the feeling of continuously becoming stronger in the game and improving their skills, as their deck is reset every time they lose or defeat the final boss.
- There probably needs to be quite a lot of art.
- No sense of plot or action, so some users might not feel as engaged.