1. Elements of Game Design

1.1 Nouns and verbs

Pick a game you know well, and perform a similar analysis to the poker example. It can be a computer game or a physical one, but one that is not too complex - maybe as complex as poker:

1. Describe the nouns and verbs there are in this game.
2. Describe the gameplay of playing the game
3. Describe the player's experience of playing. What makes it enjoyable?

1.2 Elements outside the model

Take the game you described above in 1.1. Now consider elements *other than mechanics and gameplay* that affect the experience of playing the game. What are they? What kinds of categories do they fall into?

2. Player Experience

2.1 Experience is relative.

Pick one of your favorite games. Write down:
1.   Why do you enjoy playing it?
2.   What do you enjoy about it that other people might not?
3.   What could other people enjoy about it that you don't?

2.2 Designer models

Consider some multiplayer game that you've played (online or local multiplayer). Do you see Bartle types reflected in players in that game? Do you fit into one or several of the types? Or are you motivated by things that Bartle's model doesn't capture?

2.3 User personas

Go back to your favorite game from 2.1. Imagine and write out user personas for the variety of players who would enjoy this game, who they are, and how they fit the game into their lives. Think beyond your own experience, and try to imagine a variety of players from different walks of life: who are they?

2.4 Yee model

Consider your own game playing habits. Which of these 12 motivations reflect your own motivations the most? Which of them are you indifferent to? Are there any that you actively dislike and avoid games that have them?

After doing this, fill out the Gamer Motivation Profile at https://apps.quanticfoundry.com/surveys/start/gamerprofile/ (you don't have to create an account). How do the results compare to your expectations above? Does the model describe you well and the games you like to play, or do you find yourself disagreeing with the results?

2.5 Questions to guide design

A. Consider one of the games you know well, and answer these the three questions from this section about that game, putting yourself in the game designer's shoes:

1. Who am I making the game for?
2. What will they enjoy about this game?
3. What else would they enjoy that's not in the game?

B. Like in other media, it's seemingly impossible to make a game that tries to be all things to all people. Can you think of a game that tried satisfying very different players and failed - or succeeded? Analyze it in terms of player motivations, and which ones were fulfilled successfully or unsuccessfully.

2.6 Experience archetypes and genres

A. Pick a genre you are familiar with. Which of the Yee's player motivations would you expect to be satisfied by games in this genre? Which motivations are less related to the genre?

B. Think of a game you know that tries to be cross-genre or merging genres. Does it satisfy the player motivations from both of these genres, or only some of them and fails to satisfy the rest?

3. Mechanics

3.1 State spaces and action spaces

Pick a board game you know well. Describe what information goes into completely describing the state of the game at a point in time (e.g. positions of all game pieces, etc). Now how many actions are available, and of what kind, to change that state into another state? Does the number of available actions change over time, and how does this affect the feel of the game?

3.2 Control mechanics

Consider some favorite action game, not necessarily a fighting-oriented one, but one played with a console controller. What are the inputs that it uses, and how do they translate into game actions? How does it use analog vs digital buttons? How does it use simple vs directional inputs? How do inputs translate into position, velocity, or acceleration changes?

3.3 Progression mechanics

Pick a game you like. What kind of progression mechanics does it use, to give the player feedback on their progression in the game? Are these mechanics successful in bringing players back to the game, and to keep playing it?

3.4 Uncertainty mechanics

Go back to one of the games you picked so far, such as the board game from 3.1, and describe what types of uncertainty mechanics are present in that game.

3.5 Resource management

Pick some game you're familiar with. Describe some of the units in the game, and how stats are used to differentiate those units and their abilities. Does the game make use of any stat modifiers, and if so, in what way?

3.6 Implicit and explicit mechanics

Consider a computer game that you like. List some of the implicit mechanics, that the player only learns over time, or learns by playing.

Now consider what would happen if you made the player aware of these mechanics right from the beginning - how would that change their experience?

4. Systems

4.1 Game systems

Both mechanics and systems are building blocks of game design, but they differ in scale and composition. How do you differentiate between mechanics and systems? Give an example of a game system, and the mechanics that make it up.

4.2 System layering

Pick a computer game you know very well. Try to write down as many of the systems in the game that you can think of, with short descriptions of what they do (only a sentence or two each).

Pick some of the systems and describe how they intersect, that is, what kinds of mechanics do they share.

4.3 Chains and loops

Pick a game you know well. Find a resource loop in that game (there may be multiple, so pick just one) and describe it in detail. Do you see profitable or unprofitable loops? Is there a profitable loop that could lead to runaway resource creation? Why or why not?

4.4 Grinding

The term grinding often refers to going through resource loops just to gain resources, or to improve stats, but where the actual activity is not enjoyable or interesting. Can you think of a game in which you were grinding for something and not having fun? Describe that resource chain, and your own motivation for going through it.

4.5 Feedback loops

Describe a game that exhibits a strong positive feedback loop. How does the feedback loop amplify the production of some resources based on its previous output?

Now imagine that you change this game, so that the feedback loop is negative rather than positive. Is it possible? If so, what changes would you make?

4.6 Positive feedback

Pick a game where you play against other players or AI. Does it have an economy or resource production that forms a positive feedback loop? How does this affect the conflict and resolution phases?

4.7 Randomness and feedback

Think of a game with a strong source of randomness. Does it have a detrimental effect on early game and player's strategy, or is it integrated in such a way that player's abilities can still make a large difference?

5. Gameplay

5.1 Gameplay loops

Consider some popular game that you know well, either computer or physical.

1. Draw an onion diagram for that game. Identify as many activity loops with different frequencies as you can.

2. What is the smallest (highest frequency) activity loop where players engage in the same activity over and over again? Now what is the core loop, or the smallest loop that's enjoyable, even in the absence of larger ones? Is the core loop the same as the smallest activity loop?

5.2 Loops and systems

Consider the game and loops from exercise 5.1. What kinds of game mechanics or systems do the different loops work with? Do different loops share any of those systems?

5.3 Flow

Describe your own experience of being "in the zone" while playing a game, whether getting lost in the game for a few minutes or for few hours. What was the game, and what was the activity that was so engrossing? How do you think the game achieved that? Describe whether and how the game fulfilled the three core conditions of getting into the flow state.

5.4 Fun of learning

Describe two games you know, one where small loops are harder to learn, and another where large loops are harder to learn. In both cases, describe how the enjoyment of the game changes as you learn the "easy" loops – is it enjoyable to be challenged in a different way by the remaining loops?

5.5 Extrinsic rewards

Describe some game you know well, which successfully uses extrinsic rewards on schedules (and which is not a dungeon crawler). What are the different kinds of activities that create rewards, and what schedules are being used? Does the game ramp up the workload required to get rewards as the player progresses?

5.6 Gamification

Consider some web sites or products with a scoring system, maybe like Stack Overflow, or Facebook and Twitter with their likes and shares. Discuss why or why not you think that works as an extrinsic reward, and how successful they are in 1. giving the recipient feedback about how they're doing (at what activity?) and 2. driving them to participate more.