

Reflective Essay

Transformational Play

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Before taking Transformational Play, I had very little Game Design experience. I had applied the idea of gamification to previous projects, for example, in the design of a future shared EV battery swapping system, I introduced an app with user challenges and rewards to promote sensible participation. However, this was mostly on a theoretical level.

As an infrequent player of games, I acknowledged that the field of games was varied but I did not quite appreciate the extent to which games could produce transformational effects; I believed that games were just for fun. My ambition was to understand how behavioural and social change can be delivered through games. Through this module, my perspective towards playful experiences has shifted: I now believe that Game Design provides a valuable set of techniques for designing interesting experiences and that games can act as good solutions for influencing human behaviour.

Main Insights & Practices

During this module, I added to my arsenal of design approaches and developed my confidence as a Game Designer. Most of this learning was through practical hands-on activities, as I was able to directly learn from successes and failures.

Game Design

Ideation was initially difficult, as I lacked existing game knowledge. Analysing existing games to understand different mechanics and themes and applying them through the forced pairing method was a helpful method of ideating as it resulted in an initial idea that could then be iterated upon. It was helpful to play Blokus and Waterworks when designing a network game for DRAW week. Specifically, it helped me be more creative about the ways the material (cards) could be used. When ideating, I previously applied a lot of critical thinking, however, this reduced the overall idea pool. So, during the development of our transformational game, we used the ‘yes and...’ framework on a focused topic (moral consequences). This helped us widen the scope of our ideas, which was very important when dealing with a difficult concept to target.

Consequently, I learnt that developing quick, minimum effort prototypes by using existing and easy to access resources is valuable. This sped up the rate of iterations, which was beneficial in indicating whether we should pivot or rework our initial transformational concepts. Additionally, I found that it was difficult to cover every element during rule writing, thus an iterative approach was useful for this.

Playtesting was useful at revealing elements that were missed during the design process, as people played our game in unforeseen ways. For the network building game, it quickly became evident that players had found a loophole in the rules which allowed them to build a very short network path that previously hadn't been considered. I improved my approach by considering all possible playable paths. Furthermore, as successful Game Design requires the combination of multiple elements such as theme, mechanics, interactions and aesthetics, it is particularly important to validate iterations with the target group, to understand how well the game performs. Here, the use of both open and focused playtesting with observations and questions was valuable for determining the effectiveness of our transformational game compared to our goal.

Transformational Games

Another key insight from this module was the idea of wicked problems. Conflicting constraints and value misalignments make it especially difficult to follow a two-step linear process. The Tandem Transformational Game Design (TTGD) process (Figure 1) was useful in navigating this complex environment. The idea of iterating around both goal-driven game design and game-driven goal delineation resulted in a shift in the goal/target whilst simultaneously shifting the type of game that was developed for our transformational game.

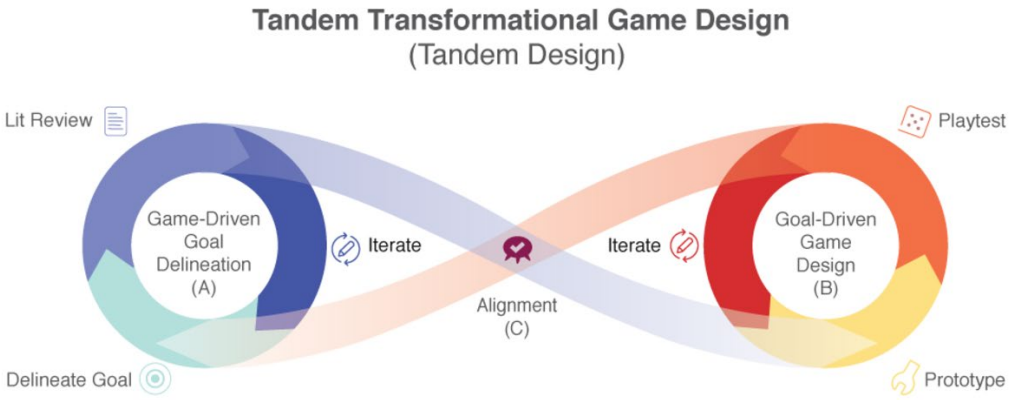


Figure 1: Tandem Transformational Game Design Diagram

The Theory of Change model was another impactful framework from this module that I perceive to be useful in the future. By tracking each intermediate step through an intervention and making them accountable allowed me to envision how big social change could be conceived. I understand that it is important to capture the reality of all interacting agents and solve assumptions. By doing so, we can ensure that resulting initiatives are grounded in reality and aligned with real needs.

Comparison to other Design Engineering Practices

Although Game Design has similar objectives and follows a similar process to other Design Engineering (DE) practices, there are some differences in theories.

Differences to Design Engineering

A quote from Bernard Suits: games are a 'voluntary attempt to overcome unnecessary obstacles' summarises a key difference between DE and Game Design. That is, games are often played because players want to play them. This means that in order to be successful in Game Design, games must be fun and target the player's intrinsic motivation. This differs from traditional DE practices which focus on creating solutions that users' need to solve a problem. This entails designing a solution that will be used by users because it directly improves a part of their lives. Additionally, the idea of 'beautiful inefficiencies' is important in Game Design as a fundamental mechanic to enable game play. For example, one of the goals in Mario is to rescue the Princess

Peach. This involves multiple steps and challenges that the player has to overcome. Instead, an engineer's approach to this would be to simply design a button that executes the given task (in this case saving Princess Peach) as that presents the most optimum solution possible.

DE often first focuses on solutions to tangible problems, rather than feelings. In contrast, games are experience-centric: they have themes and stories, which invoke feelings of discovery, fear, surprise etc. In this way, games, like art, can have a subjective element to them. There can be wide possibility spaces which invite interpretation. Whereas, the hallmark of a good DE solution is focus and clarity, where an objective solution that is less open to interpretation is preferred. For example, in 'The Legend of Zelda: Breath of the Wild', players not only engage with the game's mechanics but also experience a large open-world. The game's design encourages exploration, experimentation, and personal discovery. Unlike a DE project with a fixed set of requirements, the game embraces ambiguity. While both DE and Game Design involve problem-solving and creative thinking, their ultimate goals and approaches diverge significantly.

Transformational elements of Game Design are quite similar to DE but are often people-centric interventions aimed at specific impacts that affect intermediate outcomes. For example, for a desired change of reducing water waste, a DE approach might be to look at redesigning products and services to be more water efficient. A Game Design approach instead might focus on educating children to turn the tap off when brushing their teeth through game play. The interactive and engaging nature of the game could influence their behaviour outside of the game, therefore expanding the impact beyond the game environment. Both solutions can be effective, depending on the scenario. This shows that even if the design goal is the same, the selection of approach (Game Design or DE) can have a significant impact on the solution.

Similarities to Design Engineering

Despite their differences, both Game Design and DE practices follow a very similar iterative process (Figure 2). There is a strong emphasis on prototyping and testing in DE, using rapid prototyping methods such as 3D printing to develop works-like and looks-like models. This is also heavily used in Game Design. For DE, this iterative approach serves to de-risk solutions, ensuring they are effective and reliable. In Game Design, the emphasis on prototyping and testing is centred around a different goal: ensuring that the games are enjoyable and engaging. This slight difference is due to the fact that DE involves refining solutions to create a optimum solution, whereas Game Design focuses on the player experience.

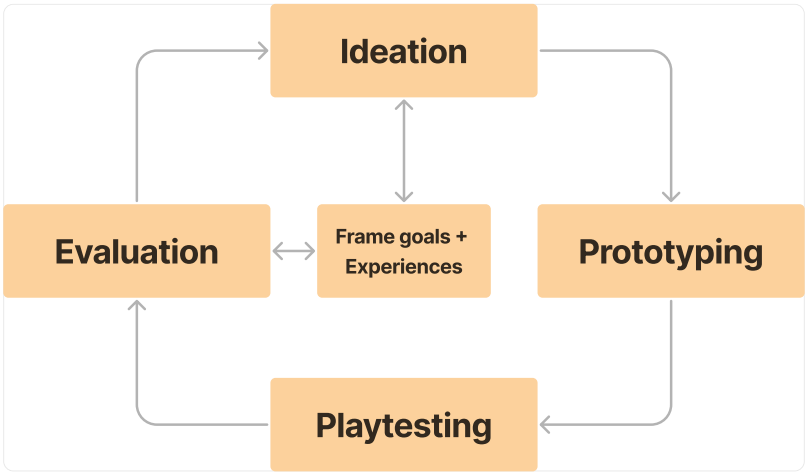


Figure2: Game Design Iterative Process

Decomposition into fundamental components (formal elements) is also similar to an approach I usually apply to break down complex engineering problems into individual aspects. Isolating

components enables me to concentrate on perfecting each building block, which ultimately contributes to overall project success.

Impact on Design Engineering and Future

This module has changed how I think about DE to be more open to playful experiences as solutions to problems. I usually take most interest in human-centred design problems, so naturally, incorporating Game Design theory into these projects could augment the quality and innovation of my projects.

For example, for my ERO project this year, my group is developing an at-home dental check-up product to encourage regular check-ups in order to improve oral health. To be successful in this, driving user behaviour change is critical. This could be achieved through a variety of methods such as marketing, but to maintain long term change, I believe we need to increase users' intrinsic motivation towards oral health. After taking this module, I now see this as a potential opportunity for a transformational experience. For example, we could implement the idea of gamification into the app to make using the device more fun. Incorporating Balancing Theory to balance seriousness of health and fun whilst leveraging Level Design theory to maintain long term appeal by having new challenges or visual levels in the app could be an effective method of incentivising use. Another approach would be to use Transformational Game Design theory to create an Edugame that educates younger people about the importance of maintaining good oral health. This would follow a change the player mechanic, resulting in a higher percentage of our target audience who would potentially be interested in our product and maximise the project's impact.

Reflecting on the skills that I have gained through this module compared to my initial motivation, an area for improvement would be increasing contextual awareness about good games and different game mechanics. This would enable me to be more creative and create more effective games. For example, I initially found it challenging to ideate effective mechanisms for change for my group's transformational game topic: moral consequences. This is because I had no prior experience playing fiction-first, game of emergence games. In the future, I believe that I should spend more time researching the specific transformation I would like to create by speaking to experts and playing more existing games. This would enable me to calculate exactly how I will imprint a desired change on a specific user group.

A game that I usually play in a social family setting is Monopoly Deal. Previously, I approached the game as a form of entertainment, but I felt that it was heavily luck-based. However, the module has improved my understanding of the underlying Game Design principles: I am able to understand the balancing used to ensure that no card has too much power, for example, using the 'Just Say No' card to counteract the 'Deal Breaker' card. I have also become more appreciative of the player experience that Monopoly Deal produces.

In my future aspiration to become an Experience Designer, I believe that understanding Transformational Game Design concepts will be very important. I strongly believe that good UI and Industrial Design is dependent on having a great UX which fuses imagination, relationships and values. As a result, applying the concepts taught in this module will allow me to create better, more meaningful and more successful products.