

Experience Design

Muse-Based Game Design Reflective Personal Report — *Cakescavators*

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1 INTRODUCTION

In this report I will discuss my personal experience when applying the technique of muse-based game design [3]. In doing so, I will outline the process that eventually led to the design and implementation of the two-part prototype of the game *Cakescavators*. I will also highlight any salient points that reflect on the experience in a meaningful way to shed more light on the methodology in terms of its usefulness and applicability.

2 BACKGROUND AND MOTIVATION

As a case study of muse-based design, this particular implementation is interesting due to the choice of muse. For the purposes of my project I chose to design a game for my girlfriend who is in her mid-twenties, practices belly dancing and cake-making, and is a lecturer by profession. What made this process interesting is that she is considerably literate within the field of games and, while she lacks any particular background in game design, it became quickly evident that she was more than capable to maintain and contribute to a dialogue within the scope of design decisions for the game itself. Furthermore, her history with games led to her building a very clear idea of what types and genres of games and experiences she seeks out. Although they were not evident at the start of the process, these two factors were equal parts challenge and benefit to the overall method. They were essentially important aspects that had to be taken into account and appropriately incorporated into the process.

As well as the profile of the muse herself the existing relationship between us provided similar elements of potential risk and reward. Having been together for a few months over a year at the start of the project, there was just enough time to build a sense of familiarity

but not enough for me to know everything about her. Shedding my sense of complacency was a challenge that, if not met, could lead to a lot of harmful assumptions being made. The process and tasks of the technique had to be given due diligence in order to mitigate these risks and provide sufficient insight into my muse to properly motivate every decision made.

2.1 RESEARCH PROCESS

The research process adopted was effectively grounded in the concept of "empathy in design," as described by Koupric and Visser [5] as well as incorporated into the overall concept of muse-based design by Khaled [3]. In approximate order, the tools and techniques used were *interviews*, *observation*, the *think-aloud method*, *cultural probes*, and *participatory design games*. Here I will describe what each of these provided to the overall process and the insights they added into my muse's profile.

It is important to note that the choices made for how these techniques were applied, as described hereunder, were motivated by the decision to avoid forcing the experiences observed as much as possible. This allowed me to gain a truer representation of my muse as the intended user, or player, of the designed game.

2.2 INTERVIEWS

Frequent but brief and unstructured interviews were used to investigate my muse's interests and motivations when playing games. These were often held out of context in order to avoid "forcing" the process, or allowing much time for premeditated answers. The topics dealt with covered as much of the relevant subjects as possible, including her history with games, what she values in a game, as well as based on what games she found memorable and why. To validate these informal discussions, one final interview was held with a semi-structured format, which dealt with similar topics in greater detail.

This technique provided a strong start to the research process. While many of the topics covered were fairly "easy" to deal with—that is, they all were firmly grounded in the subject of games in my muse's life—they set a strong foundation for the game's design to flourish while avoiding any fundamental errors. What this revealed to me, as a designer, is what my muse valued as a player. It taught me what design choices were to be favoured; such as the use of punctuated, bookended gameplay, as well as those to be avoided; such as forcing overly-detailed storylines onto the player.

This set the tone of the rest of the project and framed a lot of the information that would be collected in later tasks. It was an essential part of the process that eliminated the possibility of any critically bad decisions very early on.

2.3 OBSERVATION

Observation of my muse was carried in two parts out over a period of about two months overall. The two parts are strongly related to the interview and think-aloud method by making use of similar techniques.

In the former case, I observed my muse through self-reporting. I regularly asked my muse about the games she has been playing. Oftentimes, she would mention them herself due to

frustrating or particularly notable experiences that she'd recently had. This helped to gauge her current gaming habits. Although the observation was not carried out in person, this was far more beneficial to my research. Gaming is not an activity she deliberately makes time for on a frequent basis, which made it harder to plan around or predict. It is worth noting that although this is a slightly more distanced take on observation than the term may imply, it was deemed an appropriate approach given the subject matter of games. Ultimately, it still served the purpose of building empathy with my muse, acting as an essential part of the cognitive component [5, pp. 442–443] towards my understanding of her as a gamer.

The latter portion of observation was carried out alongside the think-aloud sessions; however, given that we play games together on a regular basis, value was also garnered from those play sessions based on what she felt were positive or negative experiences. Through further discussion and interviews, additional context and insight was obtained.

The value of observation, at least within the scope of this project, was not immediately evident. This was due to two main reasons: its application coincided very strongly with the other methodologies, and furthermore, it didn't offer much insight beyond what had already been established by those same techniques. On the other hand, it was beneficial for validating and contextualizing the information that was found through the other methods. In one notable case, it helped to establish why she values bookended gameplay, given that her play sessions are likewise very spontaneous and short-lived.

2.4 THINK-ALLOUD

Think-aloud was used in two sessions: one where I allowed my muse to choose a game, and the other where I chose the game for her. The reason for this was to allow her to play without needing to learn the game she chose. Furthermore, it allowed me to base my choice on her own; to try and challenge the notions of what games she enjoys based on her preference.

The process and results offered here were very relevant to her style and techniques of play; shedding light on her priorities as a gamer. She was never one to shy away from a challenge, but this showed what kinds of challenges she values, as well as the kinds that restrict her. Her choice of game clearly offered a challenge in the form of levels of difficulty as well as play style, but her commentary demonstrated that through appropriate design choices and interesting gameplay, her learning process was facilitated and never hampered. On the other hand, the game I chose offered an altogether different kind of challenge; one which required a method of play that she stated she could not adapt to.

This stage of the research process served well to highlight the dynamics of play that she valued the most; effectively, in what ways the essential design decisions, in the form of mechanics or otherwise, shaped the emergent experience of play and strategy.

2.5 CULTURAL PROBE

The cultural probe for this research task was approached with the intention to make it as enjoyable as possible. I wanted to foster a sense of play and creativity in my muse, so that she may feel comfortable when expressing herself. In this regard, the questions and tasks posed were obfuscated slightly, in the sense that their intent or relevance to the process were

not made obvious. This allowed me to divert somewhat the scope and approach of the research that was taking place, since much of the discussions that emerged were very strongly grounded within the scope of games. This was intended not only for the sake of my muse, but also my own. Although she was very clear and directed in her answers, I had always been providing questions that would only ever lead to answers specific to games and very little else.

Admittedly, as far as new insights were concerned, the probe offered me very little. Most of what I received back from my muse was grounded in a lot of our own past experiences together, and further emphasized the image I held of her; a person who strives for and values her own independence but cherishes the people around her. On the other hand, the activity offered her an outlet to express herself freely and artistically, speaking openly about her everyday life and related thoughts as she normally would with me. Add to that the fact that most of the pages of the diary were filled with sketches and designs, and once completed, the content of the probe served as an invaluable aesthetic component to the design process more than anything else. It provided many thematic elements to incorporate as part of the game, and make it truly her own.

2.6 PARTICIPATORY DESIGN GAME

For the purposes of this task, I used the VNA cards designed by Annakaisa Kultima [6] to play a self-made participatory design game (PDG) with my muse. This game acted as a useful tool that led the process of brainstorming with my muse, forcing us to discuss game ideas beyond both of our own comfort zones. This game proved to be extremely beneficial to the overall process, by sparking off the design phase in a powerful way. While most of the ideas generated were superfluous, the one which was ultimately chosen was the one that brought all the salient points of the research together as one whole concept. The final game idea that we chose was based on two separate concepts: "You collect different kinds of ingredients to make recipes to sell in your shop" and "you choose a team to dig for treasure. Your opponent will design a team to oppose you." I later also decided to include ourselves as the characters within the game, along with one of her sisters, as a surprise.

In terms of reflecting on my muse, the PDG also provided some more insight into what kinds of ideas resonated with her and which ones did not. Games that revolved around unnecessarily grim themes seemed off-putting to her, while quirky, silly games with a healthy sense of humour struck a chord more often. This also coincided with her preference towards lightweight styles of gameplay.

3 RESEARCH OBSERVATIONS AND RESULTS

Ultimately, the research process served its intended purpose well; to construct a detailed profile of my muse as the selected user of the game being designed. While the cultural probe did explore beyond the boundary of this scope with more personal topics, the data collected did not offer many insights in the form of what formal design elements she values as a player. The content it provided allowed for a greater degree of customization of the end product rather than formal design principles that may be applied in general.

What I learnt as a result of this research was that Samantha would rather play games that are not too great a commitment; avoiding those that would require her to retain a great deal of information from one play session to the next, learn complex strategies as the game progressed, or even take too long to complete. She values those games that she can return to whenever she pleases, irrespective of how long it has been since she last played them. They must be challenging, but should not require a great deal of forward planning to play well. RPGs, puzzle and action-based games are all good. She also tends to avoid games with overly complicated control schemes. While she appreciates a good story and cute aesthetics, these are not essential, and only help to improve an already enjoyable experience. Effectively, she can be considered a fairly casual gamer, but one who enjoys seeing a challenging game through.

Aside from the results it is worth mentioning that, although it can be considered part of the research, the PDG felt a lot more like collaborative design to me. This marked a very important tipping point in the process' transition from research into the game's design; one which had been long coming since the beginning of the project. Within just a week of having approached my muse to ask her to participate, she had presented me with a fairly complete game concept. Some of the themes of that game still made it into the final idea, but the entire research process allowed it to be built on a stronger foundation. While it would have been quite exciting to find some hidden insight into my muse and create a completely new game with unique mechanics based on that, what we both gained instead was a reusable platform upon which we can design more games together in future.

By the time we had an idea to work with, what I had learned about my muse was not simply the kind of gamer that she is, but also her capacity as a game designer in her own right.

4 ITERATIVE DESIGN AND EVALUATION

Given the final results of the research phase of the project, it would be expected that my muse's involvement did not stop there. In fact, my relationship with her in this project changed drastically once development began. Although I was still the one tasked with implementing the prototype, I made sure to engage with her in feedback and brainstorming sessions as frequently as possible.

In this regard, empirical evaluation was utilized throughout the prototype's development. At every minor milestone of its design and development I would have her play the game for some time, varying depending on the complexity of the prototype at that stage. With the use of think-aloud both during as well as after her playtest, we would discuss changes, further developments and directions in which the game could be taken.

Of course, certain ideas had to be set aside in favour of others due to time constraints, but it was exciting for me to see that on many occasions, she would provide me with ideas that I had not even considered. As far as I was concerned, by this time she was more co-designer than muse—I still had as much say in the game's development as she did, but likewise, her ideas held as much water as any of mine would have, if not more so at times.

From its initial concept, much of the depth of the game was added during this phase. Some aspects were changed or dropped in favour of others, but it was always done in such a way

that both of us approved of the ideas before they were adopted into the game. The prototype's evolution from the paper version all the way to the final digital one was constantly tweaked based on feedback I received and discussed with her. Once the basic foundations of the mechanics were established, a lot of focus was put on balancing the game in such a way that the game would offer the right level of challenge. Over the course of the entire iterative design and development phase, the feedback dealt with pretty much every aspect of the game, including the mechanics, balancing, pacing, controls and aesthetics.

For the sake of simplicity, the game's prototype was divided into two parts: the functional and the aesthetic. Given that my muse generally prioritizes mechanics and playability over the theming of the game, this could be handled quite easily, and avoided any changes in the functional prototype from affecting the graphical work or vice versa.

When the functional prototype was completed, it was also given to one of my peers who reviewed it based on the Game Usability Heuristics (PLAY) [2]. Their feedback revealed that the concept of the game was solid; the gameplay offered clear motivations while allowing a fair amount of variety, at least in the short term.

Since the gameplay implemented was meant to emulate the "endless" variant of the game, in which the player must survive as long as possible, this resulted in some monotony and limitations in the ways the player could effectively succeed at the game. Having previously taken into account the aspect of oppositional play [1], the features needed for this level of variety could not be implemented in the final prototype. That having been said, several of the shortcomings had already been considered.

5 REFLECTIONS AND CONCLUSIONS

It should be quite evident by now that my experiences with the muse-based design technique were positive. The process never felt forced or particularly burdensome. In light of these experiences, as well as the decisions I made—consciously or otherwise—a lot can be said about the overall concept and technique.

I was initially apprehensive of how the tasks would work out, and what they would reveal about my muse. I was unsure about applying certain parts of the process and, admittedly, some of the modifications to its application were motivated by a reluctance to investigate in too much depth. I did not wish for the tasks themselves to result in my muse's frustration. As far as I was concerned at the time, and will still maintain now, the process of learning about an individual from the perspective as a game designer should be primarily concerned with the influence of games on that person. This subscribes strongly to the ideas of "Player as Muse" and "Player as Designer's Patient" as described by Sotamaa [7, p. 463]. While my research did not reveal much of my muse's personal traits beyond what I already knew, it did offer a very complete profile of her as a player, which is what I, as the user experience designer, was concerned with above all else.

In light of the consideration of my muse's frustration, this is relevant to those students, as observed by Khaled in her writings, who designed games around exclusively positive experiences [3, p. 7]. In this regard, my concerns with frustration were not in the end product, but the process itself. I wanted to foster cooperation to the best of my abilities, and ensure

that the information that my muse provided me was as true to herself as possible. Ultimately, the negative experiences I wished to eliminate from the game were those such as boredom or indifference, more so than challenge or disruption [4, pp. 21–22]. Unfortunately, the design of the game's intended interactions did not really create a platform for a truly reflective experience; however, I did not refrain from adjusting the balance of the game against the player, only reducing the difficulty when my muse stated that it was impossible for her to play. In the end, designing the player's interactions around simple controls and higher difficulty created a far more engaging experience for her, as I soon discovered when she keenly boasted about her performance to me once the prototype was completed.

With regards to the application of player experience design and participatory design, my experience reflected positively on the overall concept. It is important to note that the process was facilitated considerably by the fact that my muse was more than capable of maintaining the design dialogue. In this situation, our work relationship continued to develop well past the "Player as Designer's Patient" stage, until my muse became a designer alongside me [7, p. 463]. She may have lacked the same literary background as I, but she provided insights into the game's development that I did not have access to, thanks to her added experience in the other aspects that we chose to incorporate into the game.

On a more personal level, the process provided insights that contradicted my own habits and beliefs, to some extent. I'm often guilty of avoiding collaboration with others simply out of the desire to retain control over a project I might be working on. While I was still allowed the final word on this project, I noticed quite often that it was more beneficial for the game whenever I took the back seat, while my muse led the discussion with her ideas. Evaluating and planning around those suggestions could come later. It reflected accurately on the ways in which I've successfully worked with others in the past and, while I might still be the one to always wear the managerial, emotional and discerning thinking hats for the most part, this was a clear demonstration that letting people in on the discussion allows me to see things in a different light, aiding my creativity and broadening the scope of the ideas that I otherwise would not have considered on my own.

In conclusion, inclusive participation of the player throughout the game design process is an approach that is generative of ideas that, while not necessarily new, are built on a relationship that is beneficial for both involved parties. While it is clear that the tools involved need to be utilized appropriately for each individual situation, it is also evident that the results garnered more than justify the effort put into learning more about the audience that the final product targets. We have seen this paradigm shift taking place in the industry with recent titles such as DOTA2 and the recently announced instalment of Unreal Tournament, both of which aim to involve the community far more strongly in their ongoing development. The products that emerge from these methods often prove successful and innovative; not necessarily out of unique design choices, but simply due to broadening the generative potential by involving many more people in the overall process—people who also have a vested interest in the success of the final product, as well as infinitely different perspectives to those directly responsible for the game's development.

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