

### 3.4 On the Question of Impact: Evaluating *Jocoi*

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How can a game about grief be evaluated? What should be the ‘impact’ of play? This chapter discusses playtesting, and what playing *Jocoi* with the bereaved can mean for the future design of games about grief. The chapter is structured into three parts, each of which addresses a step within the iterative development process.

When it comes to the first prototype, our main concern was whether players understood what actions are possible in the game. This concern can be split into questions of usability and user experience (UX). While usability asks for functionality, whether “players can use the controls and make the game progress” (Fullerton 2008: 270), UX tests whether the intended play experience occurs (Bargas-Avila/Hornbæk 2011). The latter is necessarily elusive and vague: Did *Jocoi* evoke a sense of mother-child bonding and subsequent loss in our players?

Based on early player feedback, we devised a second iteration of *Jocoi* which was part of a cultural probe package (Gaver et al. 1999) which the women received to evaluate their involvement in the project. As a method carried out mid-term, the cultural probe package was intended to provide inspiration for refining the game feel<sup>1</sup>. Although functionality remained a concern, we focused more directly on the women’s

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1 For a discussion of cultural probes also see chapter 3.1.

responses: How did they relate the game to their own experiences? This intent was expressed in the design of a memory booklet drawing together narratives of the mother-child bond, reflections on the muse workshop, and first impressions of the game.

More broadly, the development team used probes as a method to inspire a deeper connection between development team and participants, in order to prepare and implement appropriate adjustments to the prototype. A second intention was to provide a gift for the women which they could keep after the project ended. By addressing three moments in our handling of cultural probes – design, distribution, and returns – I will illustrate what worked and what did not work. The intention is that this will shed some light on the advantages and disadvantages of cultural probes in grief-based game design.

The third prototype was evaluated through a group discussion with the participants. Since it was the final prototype, the discussion focus was on potential uses of games like *Jocoi* from the perspectives of the bereaved. It was notable that even though the game was far from ‘feature complete’ or smoothly balanced, the women consistently reported that *Jocoi* managed to accurately capture some of their emotional struggles. This is not entirely surprising, given that the women were part of the creation process. In fact, their appreciation for specific game elements may be an effect of participating in the design process, rather than being ‘authentically’ reflected in the product.

## ITERATION 1: UNDERSTANDING EMOTION

When we started out evaluating the first prototype of *Jocoi*, we had two questions: How well does the game communicate what needs to be done to play, and how appropriately does it portray the experience of loss and grief? The difference between these interests can be understood as difference between usability- and user experience testing; the former focused on efficiency and functionality of tasks, the latter on the quality of experience (Bargas-Avila/Hornbæk 2011).

One usability concern was whether or not the navigation of the sheep and the option to nurture the lamb were intuitive. At that point, *Jocoi* came with a keyboard-based control scheme. To move the sheep, the player had to press the arrow keys. When the mother sheep approached a flower, the letters ‘G’ and ‘F’ appeared on the screen, indicating that they could graze or feed a. flower to the lamb.). Prior to playtesting, we had assumed that players would understand these letters as prompts for interaction. This was only the case for playtesters who also identified as ‘gamers’, while testers closer to the target audience were puzzled by these controls.

A possible explanation for this difference is that we inadvertently tapped the convention of Quick Time Events (QTE), in which a visual prompt needs to be matched by pressing the corresponding button on the controller. Console-game literate audiences understood these prompts as invitations to act, while non-players read them as (however confusing) parts of the landscape. Rather than input mechanisms being neutral, this initial finding showed that functionality is always caught up in a social contexts of use.

The question ‘Do *Jocoi*’s controls work?’ is necessarily tied up to the question ‘Who do they work for?’. To accommodate our audience of non-gamers, we decided to overhaul the control scheme completely. We assumed that the mouse, as a piece of hardware pervasive in households and office contexts (Reed 2016), would be a more approachable, less alienating game controller. This suspicion was affirmed by a female playtester who, when seated in front of the computer and asked to play the game, inspected the hardware and looked as though something was missing. Then she asked for the mouse.

A second insight gained from usability testing was that the role of sound was insufficiently understood to solve the puzzle. As a response we prioritized visual design. First, mouse-based interaction made it possible to hover over a flower before clicking on it. This, we expected, would define picking a flower as a personal choice, and strengthen the impression of building up the soundtrack. Secondly, we added the head-

up display (HUD) element of the flower bar, providing additional visible feedback whenever the lamb was fed a flower.

The status of usability, and the most common game moments in which players got stuck, lost orientation, or interest, was inferred from observations: When playing the game, did users ask back or try to solve puzzles by themselves? Did they wait for ‘something more’ to happen, or did they feel free to explore and experiment? One important observation was how long players would try to play the game, and whether the game provided enough direction to encourage players to try things out rather than to remain stagnant and uncertain.

The question of whether *Jocoi* appropriately communicates loss and grief experience took us back to Boehner et al’s (2007) interactional paradigm of emotion. Against the “laboratory-science tradition of studying emotion”, the authors suggest that emotion is better treated “as a social and cultural product experienced through our interactions” (Boehner et al 2007: 276). The authors concede that this does not only have ethical consequences, moving the focus from helping computers make sense of human experience towards helping humans understand their own experience, using computers. It also changes the role of the designer from absent engineer towards involved person and calls for new evaluation methods which account for the fluid nature of emotion emerging between designers and users.

While understandable in theory, the application of this paradigm raised some concern among the design team. It questioned an established idea that experience design equalled control over a particular experience outcome. Rather than quantifiable items on a quantifiable scale, players’ emotions emerged in conversations during or after play. Rather than a monolithic ‘target emotion’, there was a network of associations changing with each player’s unique situation.

We noticed that some players were more self-aware, imaginative or articulate than others when it came to associations. Some players kept focusing on rules and mechanics and speculated about possible goals and causalities. Others took a role-playing approach and identified as mother, uttering exclams like “Where is my lamb? Oh god, my lamb is

gone”. Yet other players compared gameplay and character behaviours to personal experiences.

One player reported that the flock reminded them of their passive family members offering little support during a time when they faced a traumatic separation from a childhood friend. In fact, in this early build the flock had a passive role. While the sheep mother/player struggled for survival and actively roamed the meadow, the flock just stayed in the background and post-loss continued to idly move back and forth as if nothing had happened. Players’ associations helped us work on the flock as supportive family system in line with the women’s description. While in later prototypes of *Jocoi*, the mother-child connection is still more in the centre than the family system, we changed the family’s role from absent to available<sup>2</sup>.

Overall, what we learned from the first playtesting iteration was the value of conversational and associative feedback, engaged through conversation rather than quantification. Both measuring functionality and emotional impact were better explored by looking at players’ reflections about the game than by measuring whether the game system had ‘produced’ the right emotion.

## ITERATION 2: CULTURAL PROBES

With the second iteration of *Jocoi*, we addressed the women using the method of cultural probe packages. Cultural probes, as described in chapter 3.1, are activity packs with ephemeral value for the design process (Gaver et al 1999, Khaled 2012, Lange-Nielsen et al 2012). In our case, they served as inspirational method halfway throughout the

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- 2 In the final prototype, the flock acts as a ‘social support network’ which can be accessed through closeness. Snuggling up with the flock represents nourishment and revival, as expressed by the flowers which grow back when the player leaves the flock.

development process, continuing (rather than initiating) dialogue with the participants and gaining further insight into their lives.

In what follows, I will discuss three aspects of the cultural probes process in this study; design, launch and inspirational feedback.

### **Designing the Probes**

When designing the probe package, the primary concerns were twofold: The participants' reflections on the provided materials should both teach us something we did not know yet and be an appropriate farewell gift after the project had ended. I settled on a package including three objects: a scrapbook, a postcard, and a USB stick containing the second iteration of *Jocoi*.

The most elaborate object was the scrapbook, since it included handwritten questions and tasks focusing on the muses' lives, their participation in the workshop, and their impression of the game. While the basic questions and prompts in the scrapbook were the same, leaving personal traces of the researcher – both in the form of black-ink handwriting and small decorations – was important. It was supposed to remind the participants of our dialogue, and make the book resemble a family or friendship album more than a questionnaire.

The booklet contained three sections: 'Your Baby & You', in which they could share their stories, objects, songs, and rituals around their mother-child connection and their expectations from others. The second section addressed their workshop participation, asking for memorable moments and things they liked and didn't like about the collaboration. There was also a section on their planet models, including the questions of whether they would add another material to the planet now, and what this would stand for. The idea here was that the models crafted during the workshop were situational, and something might have changed over time. To answer this question, the probe package contained a button and five pieces of fabric: a piece of shiny, smooth but thin aluminium foil, a white handkerchief, a cotton cloth, a soft and a rough sponge, as well as a button. The idea was that looking at, touching, and then choosing one

of these materials was a way of engaging with what was appropriate for the women now.

Apart from the book, each cultural probe package contained a postcard saying ‘note to the developers’. The intention with it was to invite a terse response by the muses, invoking “connotations as informal, friendly mode of communication” (Gaver et al 1999). Furthermore, I included a USB stick which contained iteration 2 of *Jocoi*, and which was supposed to be played together after the women had opened their packages and were introduced to the contents.

These items were wrapped in a coloured, padded envelope which was supposed to be handed over and explained to the participants. The idea was that after clarifying initial questions, we would move on to playtest the game on the women’s devices, record their responses, and take the results back to the development team. Other probe returns should be reviewed later, some time before the end of the semester project.

## Launching the Probes

In their Presence Project study, Gaver et al (1999) describe the decision to present and explain the probes personally as “extremely fortunate”, because it spurred some discussion and allowed the designers to gain a first glimpse into whether this unconventional method was accepted. Our intention was to launch the probes as a way to reinitiate contact after a month-long pause and use this opportunity for playtesting.

This plan was complicated when two muses had to cancel, had the probe package mailed to their homes instead, and were asked to play the game individually via the supplied USB stick. The other participants received personal instructions and displayed positive surprise over the materials. Attempts to start the game on their personal computers failed, however, and a different device had to be used. The game worked, but not on the hardware on which it was supposed to work.

Soon thereafter, the muses who couldn’t join the probe launch reported technical issues as well. This situation impacted the women’s

answers in the scrapbook: For those who couldn't play the game because they hadn't attended the meeting, an entire section of the book could not be used. Furthermore, the inability to play the game also reflected on a low postcard return: What was there to say to the developers if the game could not be opened?

This highlighted a problem with our probe design, namely that the materials and questions were too mutually dependent. Instead of evoking separate inspirational responses, the materials cross-referenced each other, and while the look and feel of the package was attractive to the women, many of the tasks included in the book could not be solved independently of the game prototype. In retrospect, it would have been more effective to divide the probes into smaller portions, reducing the importance of the scrapbook.

### **Receiving the Probes**

On the other hand, the importance of the scrapbooks was reflected both in the rich reflections the women included in it, and the fact that all of them were returned. The section 'Your Baby & You' featured intimate narratives, some of which directly addressed their babies ("this was the time you left us"). This indicates that the book was a welcome medium to once again update the mother-child connection and cultivate inner representations of their babies. In all four books, responses to the section "How it all started: space for your shared experience" filled several pages. The workshop section of the book received a similarly strong resonance.

Overall, the women remembered the atmosphere as respectful, and they positively remarked on the possibility to be close to their babies. One muse explicitly mentioned the planet as an appropriate metaphor to explore the topic of loss in a creative way.

All but one woman responded to the task "add a new material to your planet and explain what it stands for". This task claims that neither the mother-child relationship, nor grief as an experience, nor the mother's interpretation of it, can be assumed to be stable, and might therefore



require an expressive ‘update’. As Marie put it, “grief changes over time”. There is a diversity of grief “across people and within a person from one time to another” (Rosenblatt/Bowman 2013: 83). That the women did not reject the task as impossible but were willing to re-engage with their planets through new materials indicates that symbolic models are situational rather than universally appropriate. While the development team used the planets as inspirational surfaces, they were in fact snapshots of an emotional ‘world in progress’.

One thing that was reconfirmed with the return of the probes was the mothers’ ongoing concern with finding a positive space for their deceased children. The detail to which they described their own stories, and the register they chose to do so, spoke of the warmth and affection which we also wanted to communicate in the appearance, sound, and feel of *Jocoi*. In keeping with what Gaver et al. (1999) describe, we experienced probes as a method of subtly inspiring rather than directing design. We responded by making the landscape even more fantastical, adding snowflakes, bubbles and butterfly particles corresponding to the seasons. Another change that was made was the inclusion of a tutorial which explained all basic actions through black and white prompts. This had been an explicit wish by the women which emerged during our play session.

### ITERATION 3: THE PURPOSE OF AMBIGUITY

After development had ended, the women were invited again for a review workshop. This time, the purpose of evaluation was to discuss the women’s personal responses to the game and share ideas about *Jocoi*’s potential purpose for griever. In terms of method, we used a structured group discussion format divided into three parts. Following an introductory part reviewing the workshop and design process, the women played the prototype in silence and responded to five prompts eliciting quick emotional responses. Finally, these responses were engaged in a discussion throughout which we identified potential purposes and contexts of ‘bereavement play’.

In order to refresh their memory, the women were shown photos from their work and the four planet models. It was remarkable that while recollecting details from each model, the women showed no interest in attributing them to a particular author. For instance, the sheep's conundrum – whether to cross the river and be with her young or to stay with the flock – was remembered, but it was no longer important who created it. The image had become part of a shared memory owned by the group.

This highlights the ephemeral nature of symbolic modelling. During the workshop, the muses had self-identified as authors and artists owning their images. Some months later, this personal identification was no longer important. The muses had moved on with their lives, leaving their creations as parts of a shared creative effort in the past. While the models back then had expressed salient aspects of the women's emotional lives, they had now changed their significance. The women had changed, and so had their attitudes to images expressed in the past.

Moving on to playtesting, the women were instructed to play *Jocoi* without talking and each note their spontaneous response to the game on five coloured posters. These posters contained short evocative prompts, which were supposed to start a discussion on potential contexts and purposes of playing *Jocoi*. With the instruction to play in silence and react in written form, we intended to provoke genuine responses, avoid distraction from others' opinions, and ensure that the ideas spawned from play were as diverse as possible. This was equivalent to the crafting phase during the workshop, when the women turned their attention inwards before they had engaged with the group.

The five prompting phrases were 'Your impulse', 'What remains?', 'Why? For whom?', 'What does it trigger?' and 'What do you feel like doing now?'

Surprisingly, the item 'Your impulse' elicited a conversation about usability, and the question how to improve gameplay and include elements that were missing. The women consistently asked for clearer instructions. One idea was to include a flavour story creating suspense in the beginning and carrying the players through the first part of the game. Some participants reported that they wouldn't have the patience to wait

for the earthquake without an initial hint that something was going to change the mother-child idyll.

At the same time, they mentioned boredom as a vital building block for the experience of loss. The women recognised elements like seasonal change, eating, and the fact that actions take long and are sometimes tedious as appropriate aspects of nurturing. They understood associations to everyday life and its mundane processes. Specifically drawing on the question of grief and its reflection in the game world, a participant found *Jocoi*'s proposition "appropriate for the mourning process. This means on the one hand, that you find things again that you shared with the child, and on the other hand also that you do what you have to do every day" (Sarah).

The question 'What does it trigger?' evoked responses to the game's different phases and the emotions inspired in the women. The mothers had no difficulties projecting their own mother-child relationship to the first part of the game. Yearning ("Sehnsucht") was mentioned as a strong emotion during the first scene. The scene made them miss their babies and the harmony they had wished to experience with them. This was also why two of the women felt like playing the game again. After the earthquake, there was a wish to relive the connection to the lamb, while after the loss they reported feelings of helplessness and chaos.

Another motive to replay the game was to discover part of the world they had not experienced before. Most surprisingly, the women had different ideas about the meaning of the wolf cub across the river. Opinions diverged between interpretations of the baby wolf as a perpetrator having captured and devoured the lamb, and the intended meaning of the lamb's transformation into the wolf baby. At the same time, both groups of women said that the game adequately portrayed their relationships to their dead children and the kind of loss experience they went through.

The questions "For whom?" and "What remains?" initiated discussion about *Jocoi*'s potential uses and meanings. One concern was whether the symbolism was too esoteric to be understood by players outside of the group.

## STAYING OPEN FOR INTERPRETATION

This conjures up a more general question related to metaphorical game design: How to deal with the necessary ambiguity of symbolic images? In a reflection on their metaphorical game series *For the Records*, Rusch and Rana (2014) argue:

“While metaphors are powerful tools to communicate otherwise incommunicable concepts, they are not always easily understood. They might be the only way to represent what is going on “inside”, but that does not mean that they do not require further explanation. One of our biggest challenges was and still is to find the right balance between staying true to the metaphors that arose from our conversations with people with lived experience and presenting these metaphors in a form that others can grasp them. There is evocative power in a subjective and artistic piece, but there is also the risk of it not being understood.” (Rusch/Rana 2014: 362)

In their anti-anxiety game *Soteria* (2017), the authors resolve this tension between artistic subjectivity and the need to be understood by adding quotes and voice-overs. One game even includes a ‘what it means’ page, which explains the intended meaning of metaphorical aspects and clarifies what the interactions with different game elements stand for (ibid).

A different approach to the problem of understanding is advocated in Gaver et al. (2003), who argue that ambiguity can be experienced as “intriguing, mysterious, and delightful. By impelling people to interpret situations for themselves, it encourages them to start grappling conceptually with systems and their contexts, and thus to establish deeper and more personal relations with the meanings offered by those systems” (2003: 233).

Similarly, Sengers and Gaver (2006) have argued that staying open for interpretation and embracing a potential divergence between designer and user meanings can be valuable for both. After all, “[n]o single one of these perspectives may necessarily be “correct;” instead, all may

be useful in highlighting aspects of how systems will be understood, be used, and find roles in individual's and community's lives" (Sengers/Gaver 2006: 3).

This suggests that dealing with uncertainty is an active part of sense-making and therefore part of the empathetic dialogue we wanted to initiate with *Jocoi*. Rather than stable, the meanings of the planets had always been in flux. Although the women had used concrete materials and narratives to express themselves in the muse workshop, the resulting emotional landscapes had evoked different interpretations in other muses. During the discussion phase of the muse workshop, a priority had been to give space to these reactions and to cultivate sense-making both towards collective and individual meanings.

Narrowing down the game in terms of a single 'correct' interpretation seemed counterintuitive to this process. At the moment the game was experienced by a player they were implied in this dialogue as a part of a struggle for meaning. One use of *Jocoi*, as the women saw it, was as a self-help tool in bereavement groups like 'Regenbogen'. This was yet another reason for ambiguity and against closure: Rather than explaining loss and grief to the griever, *Jocoi*'s uncertain symbolic world offers a canvas for projection, accommodating a variety of child loss experiences.

