

The Role of Players in Game Design: A Methodological Perspective

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ABSTRACT

In order to understand what a game is and how to design good games, we need to understand the players as well as the act and the experience of playing. However, the players are not typically very much involved in game design processes, especially in their early stages. To develop and evaluate methods of player research and ways to integrate them into game design processes, we conducted a study with self-documentation sets. To bring playful elements into design of games the tasks were presented in the form of a game. The game box included several different tasks designed to encourage participants to reflect on their relation to games and gaming from various and also unexpected viewpoints. In this paper we focus on the methodological issues, but also present findings on some of the tasks in order to demonstrate what kind of results can be obtained using this kind of approach.

Keywords

Player-centred design, play in design, self-documentation sets, cultural probes

1. INTRODUCTION

Games have to be played. In other words, games – however complex or simple their abstract rules are – remain piles of dead pieces without players. Playing is an integral part of any game and gaming experiences are always constructed in a dialogue between players and gaming systems. [1] Although many popular titles in the era of digital are single-player games, various types of social interaction can be identified among contemporary gaming cultures. Players constantly surprise designers by constructing unexpected strategies and ways of using games. Players also create and share different kinds of game-inspired content with other gamers. Thus, it can be argued that the creative input of players – ranging from clever in-game strategies including bending the rules and cheating to sophisticated modifications of gaming hardware – should be seen as a part of contemporary game industry. [26] However, the creative potential of players is relatively seldom used to enhance commercial game design.

Significant amounts of money are used on engaging players in game testing but that is often the first phase when actual players are considered in the development process. Some developers have seen the benefits of supporting gaming communities and player-driven content production. However, these strategies normally aim to influence player behaviour after the game is released. Thus, there is a clear difference when compared to traditional user-centred design ideals where the ‘real’ user is

involved in the process from the very beginning. During the past couple of decades user-centred design has established itself a central position in the heart of academic HCI studies. Simultaneously the user-centred ideals have been successfully applied to a variety of commercial design fields. However, regardless of the obvious mutual benefits, there has been little or no communication between game designers and practitioners of user-centred design until recently.

In general, it seems clear that game design can benefit from the basic usability evaluation methods. Equally interface designers can learn a lot from the strategies computer games use to immerse players into the game worlds. However, there are significant differences between utility applications and computer games. [13] Therefore players should not be seen as mere users of the game. Designing meaningful challenges that are integral to games is obviously a different task from minimizing the cognitive load or making the software easy to use. Therefore playability must be seen as a somewhat different target than usability. [14,6] What then, are the particular advantages of involving players more in the game design processes? Firstly, players can be an important source of innovation for future games. This is not to say that knowing player ‘needs’ or letting players design games themselves would guarantee more innovative or pleasurable games. However, as the contemporary game industry is repeatedly criticized of sticking with the tried and trusted methods and genres, a player-centred approach can have an important impact on the overall diversity of game cultures. [6,3] Secondly, player-centred methods seem to be lacking especially in the early stages of game development. The impulses for new games are often considered to be mysterious and to have their origins in individual insights or random occurrences. What we expect to produce is an alternative that can improve our understanding of players in the early phases of design process. Thirdly, there is an overall need for evaluated research-based methods for game design [6]. Since the field of player-centred design has yet to be defined the focus of this paper is in contemplating the methodological challenges we have identified during our project. It is our sincere hope that a detailed review of our approach can encourage other researchers to experiment in the area.

Design and Research Environment for Lottery Games of the Future (SuPer) is a research initiative that focuses on developing an environment for testing and evaluating future game concepts. In this project our research group at the University of Tampere Hypermedia Laboratory works in close co-operation with representatives from the Finnish National Lottery Veikkaus. In

practice, we concentrate on developing and evaluating methods of player research and integrating this research into game design processes. The most important thematic starting point for this study, already discussed in our earlier research [15], is the increasing overlapping between cultures associated with the products of digital games industry and lottery games and betting. The intention was to collect rich contextual information on the actions, habits, motivations, ideas and beliefs related to games and playing. The research frame included no strict distinction between the games of chance and the games of skill. Instead we wanted to see if those kinds of distinctions would arise from the research data.

During the first project year we developed a self-documentation method that allows participants to elaborate and share their notions and wishes concerning games and gaming. The participants received a set of tasks that encouraged them to contemplate their relation to gaming from various, sometimes unusual, perspectives. Later on, we organized interviews where the materials were discussed with the participants. We also organized workshops with our research partners where we used the self-documentation materials to both inform the existing design initiatives and to inspire new ones.

From a basic research perspective, we wanted to explore the everyday meanings and habits associated with different types of gaming. We wanted to reject stereotyped views on gaming as solely solitary and isolated experiences or as something associated only with infants and adolescents. Instead of simplifying playing and game cultures into interactions with various gaming peripherals we attempted to grasp the role of playing and games in a larger context of leisure. Furthermore, our interest was not limited to digital games, but we were eager to explore the differences and similarities between different game types. From the design perspective, our primary focus was on developing and evaluating the method. The self-documentation sets were designed to accumulate inspirational data and the materials were later analyzed and processed. Still, our intention was not to produce straightforward design requirements but more to go beyond existing game concepts and genres and target groups and open up our notions on gaming cultures very different from each other.

This paper is an attempt to document the key findings of our research so far. The primary focus is on the evaluation of the method. Other results are discussed as far as they are able to exemplify the potential of the method. Since the research tasks were relatively open the project offers a chance to discuss the larger questions that remain currently unclear. What are the limits of player-centred approach and can we identify where it is especially useful?

The second more general theme deals with bringing elements of play into game design. The importance of more profound understanding of fun has been recently highlighted both in the design of user interfaces and in game design [23,17]. Still, such experimental and fun approaches as design games have mostly not reached the area of game design. Our approach introduces a way of bringing playful elements into design of games. We suggest that it is important to ask how gamelike tasks can benefit the design process. Is it possible to make the whole design

process more enjoyable and exciting by involving players in challenging and fun ways?

The structure of this paper is as follows. First we will briefly explore the theoretical background and the reasons that led to the development of our approach. After that we describe the self-documentation method and the way we applied it in the research. Then we will move on to demonstrate the kinds of data our approach was able to produce. Finally, we will discuss and evaluate the method based on our experiences.

2. DESIGN AND PLAY: BACKGROUND FOR PLAYER-CENTRED DESIGN APPROACH

It may be argued that all design involves elements of play. Some predetermined rules normally direct the course of design choices but the final result of any design process is dependent on the productive activities of actors involved and therefore not known beforehand. The idea of using different kinds of games in concrete design projects is not entirely new. Already early Scandinavian participatory design projects used games to engage workers in development processes. These approaches investigated the practical conditions needed for pleasurable engagement in design and emphasized the playfulness of design work. [4] More recent research literature includes relatively many examples of the use of game-like approaches in different design fields. Design games have been used to help the idea generation and communication between stakeholders [2] and to encourage experimental and creative engagement [20]. Games have also been used to facilitate the use of field studies materials in design process [12]. Furthermore, role-playing has been a relatively popular method to explore the potential uses of new technologies [27]. The arguments for using games and playfulness in design vary and are not limited to improving features of the end-product. Games and playful tasks can help to open up the dialogue between designers and other stakeholders and encourage participants to share their ideas. Games may also enable players to step outside 'ordinary' life for a moment and adopt positions different from their 'everyday' identities. Providing new and unexpected perspectives on familiar situations can produce information that is seldom uncovered with traditional methods like interviews or observing.

In this contexts it is notable that majority of the projects applying game-like methods focus on developing utility applications. To our knowledge, game design books and manuals seldom mention game-like methods at all. Furthermore, it can be argued that the spectrum of player-centred methods used during a typical retail game development process is fairly limited. Market research can produce information about player demographics or general consuming habits and trends. Different testing phases (alpha, beta, playtesting) can involve significant number of voluntary players. [3] However, when we turn our attention to the early stages of game development that are sometimes referred to as the "fuzzy front end", player-centred approaches remain almost non-existent. We suggest this is especially noteworthy since various important decisions concerning the features of any product are made in these early stages of development [22].

The impetus for developing the player-centred approach described in the following arose from various sources. First of

all, our earlier experiences obtained by using self-documentation packages suggested that the rich multimodal data, an approach of this kind is able to produce, is highly valuable when the objectives of the study are fairly open [25]. Secondly, although the Cultural Probes approach introduced in [7] has been adopted in several design fields it has not been extensively applied to game design. Since this approach aims “to provide opportunities to discover new pleasures, new forms of sociability, and new cultural forms” [7], we suggest it lends itself well to study of emerging game cultures. Thirdly, the way cultural probes emphasize the aspects of play and exploration suits our purposes well. We expected that by encouraging participants to play with the materials we would not lose the fun and pleasurable aspects associated with games.

In brief, Cultural Probes is an experimental design-lead approach that is utilized in research to understanding users. Rather than building on a precise scientific tradition cultural probes have their background in the traditions of artist-designers. These self-documentation packages are meant to provoke and collect inspirational responses from participants. The tasks gather data on people’s everyday actions and contexts but also provide participants with means to reflect their opinions and communicate with designers. As Gaver et al. emphasize [8], the primary objective of probes is not to collect existing user needs or extract user requirements but to provoke new and unexpected ideas. Later on, as probes-like approaches have been applied in various design projects, there has been some discussion concerning the potentials and the limits of probes. It has been claimed that the range of self-documentation sets is not limited to producing inspiring signals. Probes have been used to collect contextual ethnographic information in an unobtrusive manner [11]. In some cases, in order to gain a more holistic understanding of participants, the probes approach has been combined with interviews [19,25].

On a general level, the term ‘probe’ refers to recording instruments that are sent to places where human researchers are not able to go. Some examples include space probes and medical instruments that operate inside human body. In the context of our project we found the probe metaphor to be a bit obscure and even misleading and therefore when introducing a probe-inspired approach into game design we decided to present the tasks in the form of a game. If ‘probes’ are supposed to gather information automatically, ‘game’ puts the emphasis on the creative involvement of players. The rules of the game may set the scene but it is up to the players to decide the course of actions. As we will see later on, the participants are also able to bend the rules and apply unexpected strategies. Some of the practical design choices performed to support “the game approach” are documented in the following section.

3. DESIGNING THE SELF-DOCUMENTATION SET

Since the self-documentation set was the main channel to communicate our ideas to the participants we put quite a lot of effort into the concrete design of the set. From the very beginning, we wanted the design to reflect playful and fun attitude characteristic to our study. The aesthetics stressed the distance between our approach and formal questionnaires and

other traditional academic methods. In order to distinguish our materials from commercial products both the physical design of the set and the layout of individual tasks were deliberately left a bit rough on the edges. For example the fabric bags for storing cards were self-made and the individual game boxes were modified from used cardboard cases originally designed for delivering 12-inch vinyl records.



Figure 1: Contents of the Game box: rules sheet, two workbooks, disposable camera, sticker sheets, daily bonus cards and a fabric bag, drawing pens and paper glue.

Also the gamelike dimension that we wanted the self-documentation set to reflect, was highlighted by design. Firstly, the components were packaged in a case that was made to resemble an average board game box. The idea was that opening the case and familiarizing oneself with the tasks would remind the participants of the moment of learning a new game. One function of the box was to enable safe storing and transporting of materials. Interestingly, this proved to be of significance since during the interviews we learned that a 8-year old participant had even taken the box to her friend’s place to “play” together. The game metaphor was also supported by the “daily bonus” mission where participants were requested to pull a random card out of the deck delivered inside a little fabric bag. The purpose of this mechanism was to introduce the element of chance to our self-documentation set. The cards included different tasks ranging from straightforward questions to simple mini-games. The other function of this task was to remind participants of the “leisure diary” advised to fill on a daily basis. The third significant component in building the playful setting was the rules sheet. The sheet introduced the contents of the box and instructed participants how to begin the game. Yet, the rules did not define any penalties for breaking the rules or clear winning or losing conditions. Finally, when the boxes were delivered to people we tried to emphasize the playful aspects. Later, a single telephone call from a participant convinced us that our efforts had not been

misspent. The 71-year male started the conversation by announcing “I have been playing this game of yours and now I’d be ready to discuss it with you.”¹

The tasks were presented in two different books (see Figure 2). The idea was to distinguish quick daily tasks from the ones that were not time-dependent but required a bit more consideration. This decision was partly inspired by our earlier research project where similar starting point had proved successful [25]. Collecting all participant output to a pair of books also facilitated the analysis and easy filing of the materials.



Figure 2: The two workbooks

The smaller book included a diary-like task where participants were asked to report their recreational activities during a seven-day period. Again, the aesthetics were used to distinguish our approach from formal time managers. Each 24 hour period was represented with a colourful illustration (see Figure 2). We used the figure of sun to indicate daytime and the moon to represent night. Activities were loosely divided to themed groups (watching television, playing games, outdoor activities, socializing, cafes and restaurants and so on). Participants were asked to mark their daily doings with coloured stickers that were delivered with the set. Additionally, every double page spread had space for answering and reflecting the daily bonus task.

There were five different tasks in the larger of the books. As is typical for the probes-inspired studies, participants received a disposable camera. The photography assignments ranged from quite concrete “A game that has grown dusty” to more ambiguous like “Seeking for excitement” or “I wish I was someone else”. A few pages in the end of the larger book were allocated for developed photos. Secondly, the participants were asked to reflect on their favourite games from different periods of life. Thirdly, we wanted to survey notions associated with different game types. The examples ranged from outdoor games, board games and slot machines to console and mobile games. The next task encouraged participants to be creative and reflect on their notions, beliefs and desires by creating collages. The

task consisted of pictures of three sad trolls and the assignment was to bring the trolls back to a good mood by adhering fitting newspaper clippings, illustrations, pictures and printed texts. “Troll of misery” hungered for luxury and exclusive items, “Troll of defeat” was short of good luck and rewards and “Troll of boredom” chased excitement and risks. By introducing an artistic technique of collage we wanted to map the various associations related to different pleasures. Assemblages created from “found” materials served as rich and abundant inspiration. Although several participants found this task difficult and somewhat puzzling at first, in the end some of them were really excited and curious to discuss different possible interpretations. Finally, we asked the participants to complement pictures that portrayed everyday gaming situations. We had used similar tasks before when interviewing children [5] and now we were interested to see how this would work with people of different ages. In the hands of our participants the pictures transformed into lively social situations.

The tasks were designed to encourage participants to reflect on their relation to games and gaming from various perspectives. Some tasks were closely tied to particular games and playing situations, others had a more open focus. Some of the tasks were deliberately ambiguous and speculative. The idea was to provoke new and unusual viewpoints on the matters. We also hoped to uncover games-related everyday practices and routines people normally find too self-evident to document.

Since the approach based on the self-documentation sets is laborious and time consuming we knew that the number of participants could not be very high. Some of our 12 participants were chosen among the people who had earlier filled a related web questionnaire. Others were obtained through colleague contacts. All participants were Finnish, half of them male, half female. Ages ranged from 8 to 71 years. The sample included individual informants, couples and a family with children. Informants living under the same roof were chosen to participate since we wanted to examine the everyday negotiations and collective decisions related to playing and enjoyment.

The participants differed significantly with respect to their relation to gaming: some of the participants were very active players, others played every now and then and some hardly played at all.

Depending on participant’s wishes the self-documentation period lasted from ten days to two and a half weeks. Since the information gathered was highly contextual we organized personal interviews to discuss the materials further with participants. After the documentation period we reserved a couple of days to familiarize ourselves with the materials to be fully prepared for interviews. Some shared themes were decided in advance but otherwise the flexible structure allowed us to focus on themes the interviewee found interesting. Thus in methodological terms, the approach can be divided into two different phases, those of “observation” and “interpretation”. [19] Still, the starting point is somewhat different from traditional fly-on-the-wall observation since the tasks provoke participants to consider their habits and beliefs from new perspectives. What the self-documentation set produces is an impressionistic account on a wide spectrum of themes. Interviews provide an opportunity to adjust the early

¹ All citations are translated from Finnish by the authors.

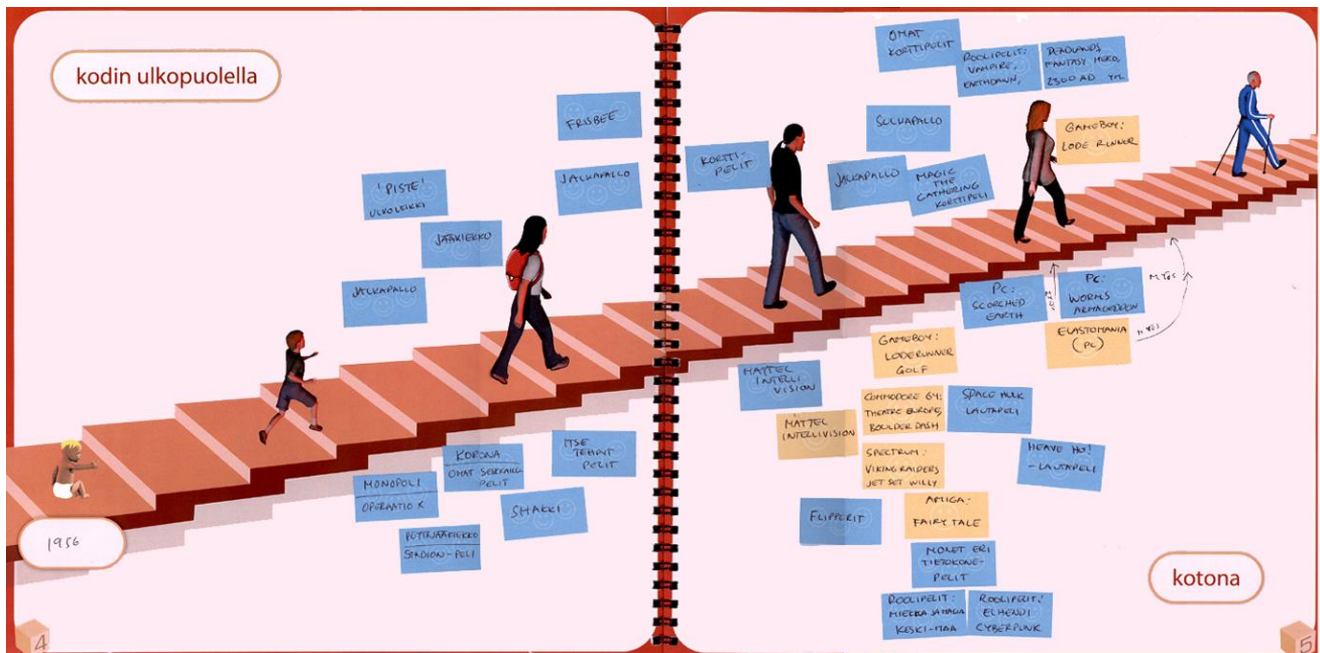


Figure 3: “My Favourite Games of All Times”: Games below the stairway were located at home and games above were played outside home. The ones marked with lighter stickers (yellow) were played alone, the darker ones (blue) together with someone.

interpretations made based on the materials. However, interviews should not be used solely to vindicate earlier notions but to deepen the understanding on particular themes. Interviews also produce new research data since they often introduce new themes and topics.

4. EXPLORING THE WAYS PEOPLE PLAY

Understandably, it is not possible to include a detailed reading of the research data here. Instead, we apply a thematic approach that aims to highlight the nature of findings the method is able to produce. In this section we mainly focus on two different tasks: the personal game history and the one where people were asked to add speech balloons to illustrated gaming situations. Findings from other sections are also introduced when they significantly contribute to the theme.

Gaver et al. argue [8] that sharing some sense of humor, passion, and empathy with users can have a significant impact especially when designing for pleasure. In order to learn to know the passions of our participants we asked them to collect up a summary of their gaming life. The function was not only to get to know these people but also to produce background information that would help to interpret the other tasks. In practice, participants were asked to attach their favourite games to the illustration where different periods of life were placed in a stairway (see Figure 3). The figure allowed them to express whether the games they mentioned were played at home or outside home and alone or together with someone else.

It is obvious, that we could have asked people to reflect their memories without any additional resources, and possibly got very profound and informative answers. However, ‘the gaming

stairway’ provided us with a concrete outline where the entire gaming life was visible at once. The map offered a chance to reflect on one’s past and it seemed to give the participants enjoyment per se. Reminiscing about old games brought out lively memories of childhood playgrounds and dear gaming partners. Participants living under the same roof had specially enjoyed remembering together. As we learned, you can actually tell quite a lot about a person on the basis of their personal gaming histories. The variety of vivid memories made a strong argument for the larger significance of games.

Similarly, in the photo assignment section, no participant found it difficult to find “a game that has grown dusty”. It is no surprise that people get bored, make inconsiderate purchases, and yearn for change. However, the interesting thing here is that games that are no more played, are seldom thrown away. It seems that often some particular games have become an important part of the personal history and therefore they are stored even if not played. Symptomatically, a 34-year old female participant, who had played next to nothing during the past few years, told us the following: “I guess it tells something about their [games] significance that somewhere on the way my old school books have been junked. But I couldn’t imagine giving them [games] to someone else. They’re mine!” This comment also highlights the fact that games, and especially board games and card games, are also artefacts that can become meaningful as such.

The visual mapping of important games allowed us to trace possible parallels between different stages of life. For example, a 49-year old male participant had written “self-made games” on one of the stickers. When we asked what this meant, he explained: “I’ve been constructing games of my own from the age of seven or eight. [---] Let’s say for example Monopoly... It was

an entertaining game but when you had played it three or four times you began to get bored. I wanted the game to have alternatives [---] so I made a city of my own that had alternative routes and more variety. You had more power on your own and it wasn't so dependant on the chance anymore." The consequences of this early preference were clearly visible in the later stages of his gaming life. Nowadays he was a member of a group that met each other on a weekly basis to play roleplaying games, board games and card games. This familiar group was also a favourable audience for introducing the self-made games. When discussing digital games, the participant emphasized how important it was to be able to create levels and maps of one's own. When we asked about his current favorites he told us: "Well, then is this Lode Runner for Gameboy. It's one of my favorites. I got it from my friend approximately fifteen years ago. [---] And you can make a new level in a minute or two. It's fun to make new challenges for yourself and try to play through the levels you've designed. [---] I know it's a kind of silly that I don't lose my interest on the game. Just played it this morning."

Many of the interviewees had a distinctive break from gaming at some phase during adolescence. This gap was explained to follow from 'the more important things' like other hobbies, going out and dating. Often the childhood games made a comeback after a few years since people begun to play the same games again with their own children. It was not uncommon that parents and grandparents taught children games they had played as children or games they still play. Often the games learned from older generations were traditional card games and board games or outdoor games. However, as our participants witnessed, this also works the other way around. It was relatively common that parents were familiar with digital games since their children played them. In order to moderate the quantity and quality of gameplay, parents found it important to know at least the basics of their childrens' favourites. Thus it can be argued that games are seen as a part of cultural heritage people find important to distribute to younger generations. At the same time, children can have a significant role in updating their parents gaming knowledge.

According to the interviewees the major changes in the role of games over the lifespan are primarily due to changes in social life. Thus, adopting new games is not entirely dependant on the superiority of games or the introduction of new gaming platforms. Instead, such things as moving to another place or learning to know new people can have an effect on the gaming behaviour. A female participant who otherwise was a relatively active gamer had an almost gameless period after moving in with a partner who was not interested in playing games. Based on our data there seems to be multiple reasons for adopting a new game. Although game magazine reviews were found useful, often praising comments from friends or seeing someone actually play a game had a significant impact on the decisions. However, choosing a game is not a completely rational process. One of the participants often played games in a bar. In these sessions, a new game was often given a chance whenever there happened to be a new one in the place.

Our data suggests that games can be viewed as a "social lubricant" for people of varying ages. Further, games can unite people even in situations where they do not know each other. The

potential social nature of gaming was further investigated with a task where participants were asked to complement four different illustrations. The pictures portrayed different gaming situations and every picture included more than one individual. The participants were asked to describe the situations by drawing facial expressions to the characters and by adding speech and thought balloons to the picture. The example introduced here portrayed four people gathered around a sofa. Two of the characters had game controllers in their hands.



Figure 4

In Figure 4 the characters in the middle are competing with each other and they both express a strong belief in one's abilities. The two other characters look a bit frustrated and suggest alternative ways of spending time. The replies received from participants included a variety of different interactions between individuals. The characters with controllers were not only competing or co-operating but also teaching each other to work out the challenges. The two other characters were either waiting for their turn or cheering for the players' achievements. In some cases the characters were not so harmonious but some of them wanted to watch television, play a different game or do something completely different. Once, the character on the left was portrayed asleep. While a home can be argued to be a focal setting of everyday life, it is also the primary space for relaxation and escaping the social pressures. During the interviews some people described situations where they wanted to play alone, even if there were other people in the same room. Others enjoyed watching other people play although they were not interested in joining the game.

The second version explaining the events by the couch introduces a new technique, not suggested by our original instructions (Figure 5). Not only one, but two different participants had clipped pictures of celebrities from magazines and used them to bring nature into otherwise empty figures. This strategy introduces an element of intertextuality that has to be taken into account when interpreting the materials.

tools like workflow analysis or task analysis that have been developed to improve our understanding of users. However, these approaches are useful when improving existing systems and otherwise when the focus of a project is relatively narrow. When developing for example work-place systems that aim to improve particular modes of working, the objectives and working environments can be examined in detail. In contrast to this, playing games is mostly considered to be voluntary and deliberate and the environments are much more diverse.

It is not simple to conclude this rich and diverse approach in a few sentences but we would like to highlight the following three points. First of all, it seems that our approach was able to produce some interesting and inspiring results. All in all, the interviews benefited significantly from the self-made materials. The playful materials seemed to liberate people to share their crazy or unconventional ideas. The significant amount of work the participants had made already before the interviews allowed us to pass over the “warm-up questions” and right from the beginning we were able to consider the relatively complex issues related to the research themes.

Secondly, the diverse data enabled multiple uses and could be used as such in our design workshops. This was a crucial benefit since typically the field studies materials require editing and filtering before they can be brought to the design process. This way we could also guarantee that no information was lost before the design workshops.

Thirdly, it is clear that some of the tasks were more successful than others. Some of them were able to produce insights that are likely to support our design initiatives. Others gathered profoundly interesting information but design-wise were not very informative. The approach offers a broad and fascinating overview on the research theme but does not produce clear guidelines for the next phases or straight-forward instructions for future design. The information one receives with playful self-documentation sets is diverse, multimodal and typically not measurable. The analysis of data is extremely demanding and requires combinations of different methods of analysis. Besides, creative and artful works invite multiple interpretations. Simultaneously one should be aware, after all, that the creative – or ‘artful’ – construction of knowledge is not the opposite of science, or the scientific method. One can here only quickly refer to the tradition going back all the way to Plato, and to the way art (particularly, *technê*) is not the opposite of knowledge (*epistêmê*), but rather something that is roughly identical to it: skill, discipline, method, rationality. [10]

One of the topics discussed recently in the field of design research is the role of empathy [16]. In this context, empathy should be understood as an imaginative projection into other people’s situations. Since our understanding of the emotional and motivational qualities of players and gaming situations has clearly improved, we suggest our approach shares similarities with the emphatic design ideals. It may be early to point the exact place of our approach in relation to the whole design process but we can mostly agree with Koskinen and Battarbee who state that: “[T]he place of emphatic methods in the product development process must be questioned. We suggest that the best place for these methods in the early, conceptual part of the product development process. In particular, emphatic methods

work best in concept search, which we see as preparation for concept design.” [16]

Our approach also raises larger questions about the current role of researcher. It goes without saying that an open-minded approach on applying and developing methods would not have been possible without the interdisciplinary background of our research team. Although some responsibilities were distributed, everyone was expected to participate both in planning the approach and analyzing the results. One of the most important characteristic was the ability to deal with unexpected and surprising results. Everyday meanings players attach to games and playing cannot be understood without moving between different positions. Working with people on the field and communicating the findings the way they can relevantly inform the concept development and design requires extreme delicacy. It seems that although the field of game design research is still in the making, we have already begun to witness the emergence of multi-skilled researcher-designer who is capable of adopting information from various sources, co-operating and thinking on several levels at once.

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