A Playcentric Design Process of a Storytelling Pervasive Game

Samuel Oest
Abstract

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One genre of games is pervasive games and it is a concept that many forms of gaming have been grouped into. Pervasive games can be described as games that are played in social environments and influence the ordinary life of the player and the people around them. Such influence creates new challenges for the game design, since the dynamics of game and ordinary life have to be taken into consideration. When not only designing for an engaging pervasive game, but having stakeholders with certain demands as well, the challenge gets even bigger.

This thesis explores the playcentric iterative game design process in the context of a strong stakeholder's interest. More specifically, the thesis works with the design of a storytelling game that is intended to work as a tool for gathering stories. Action research is a form of reflective research where the active practitioner studies, analyzes, reflects on and improves the researcher's own work.

Two of our main findings were that the direct involvement and strong opinions from the stakeholders made it hard to keep any game elements in the design and, during the design process, directed the intended game more towards an activity rather than a game.

The playcentric approach helped us a lot during the design process. We could both test the stakeholders' preconditions in practice and get valuable feedback in return that together contributed to an engaging pervasive activity as well as a story gathering tool.
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1 Introduction

Everyone knows what a game is and most people like to play one. Most of these games have at least one game designer. Even the simplest game has rules, rules that are well elaborated and carefully prepared by its designer. The more complex the game gets, the more effort the designer has to put into the design decisions, to achieve that balanced and engaging game mechanics that we want when we play games. One genre of games is pervasive games and is a concept that many forms of gaming have been grouped into. Pervasive games can be described as games that are played in social environments and influence the ordinary life of the player and the people around them. Such influence creates new challenges for the game design, since the dynamics of game and ordinary life have to be taken into consideration (Montala 2005). When not only designing for an engaging pervasive game, but have stakeholders with certain demands as well, the challenge gets even bigger.

In this thesis, I explore the design process for a pervasive game, in which several pre-existing factors were given beforehand. The project was co-designed with an artist – a stakeholder – with a particular use in mind, and a strong idea of the end product from start. The game was to be a location-based storytelling game; a genre that has been little explored before. Thus, creating a compelling experience was a true challenge. This study will investigate design methods that were employed in the process and critically examine their contribution to the end design. Thus, it will contribute to our understanding of how you can go about designing an engaging location-based storytelling pervasive game.

1.1 The project - I am your body

“Samtider” is a project started by Kista Teater during fall 2009, in collaboration with Stockholms Stadsmuseum, the university of Stockholm and Mobile Life. The purpose of the project is to get the people living in a particular area around ‘Järvaältet’ share their thoughts and experiences with each other and other people that are interested in the city culture. The end goal is to engage the local community in the current and future state of the area. The gathered information will also be used in research as well as shaped and communicated in different ways by the stakeholders. One of the sub projects in “Samtider” concerns developing
a game that tentatively has been named: *I am your body*. This is intended to be a pervasive game with focus on location-based storytelling, using mobile phones. At the same time as creating an engaging experience, it is planned to be a tool for generating stories that are related to the Kista and Järva area. The involved actors of the game *I am your body* are a small team from mobile life and the stakeholders from Kista Teater. From Mobile life’s perspective, the most interesting research issues concern game design.

### 1.2 Research Goal

The thesis explores the playcentric iterative game design process in the context of a strong stakeholder’s interest. The main goal of this research is to explore how various design methods contribute to making an engaging pervasive game that people want and like to play, while, at the same time, cater for the goals of the stakeholders.

More specifically, the thesis works with the design of a storytelling game that is intended to work as a tool for gathering stories in the form of thoughts, experiences etcetera from the people who live in the Kista and järva area. With these research goals in mind, we can summarize the research questions as:

- **Will a playcentric iterative game design method be a good tool for reaching the stakeholder goals?**
- **Can we at the same time achieve an engaging pervasive game, and a story gathering tool?**
- **How does the fact that the game is site-specific influence the design process?**
- **How does the direct involvement of stakeholders affect the game design process?**

### 1.3 Contribution

The main contribution of my thesis concerns the issue of playcentric design in the presence of a stakeholder apart from the players. More specifically, my thesis explores the precise requirements posed by the stakeholder in the investigated project: the goals of creating a site-specific storytelling game. The field of location-based storytelling games is also rather unexplored: there exist few games as well as few research experiments in this area. Thus, my research contributes with knowledge of how iterative game design methods function within
the scope of location-based storytelling games as well as how the design process deals with the problem of having both an engaging game and a tool for story gathering as a common goal.

By being a part of the design team and involved in the design process, we will gain information and knowledge about how the iterative game design process works in this environment and how it affects the outcome.

1.4 Delimitation

Since the thesis project has a limited time frame my study does not cover the whole development process. The study covers three iterations; first, the Brainstorming session where ideas about the game design where shaped, second, the first prototype testing where an early game concept was constructed and tested, and third, the second prototype testing in which some of the intended technology was put in place and tested on location. A full-fledged evaluation of the final game is thus not part of this thesis.

Another possible limitation, and something that may affect the result of the study, is the arguable situation whether it can be called a location-based storytelling “game”, or if a more appropriate word would be location-based storytelling "activity". From a definitional perspective it can clearly not be considered a traditional game. For lack of a better word to describe this kind of experiential activities, I will still refer to it as a game throughout the thesis.

1.5 Approach

From a methodological perspective, this study can be described as action research. The purpose of action research is to have a direct affect on the researched area in question, with the goal to contribute to the solution of the problem. The researcher does not only observe the participants from the outside, but contributes actively to cause a change in the observed environment. In my case, I contributed actively to shaping the design of the system as well as the design of the design exercises. I then observed and analyzed the result through a host of methods: personal interviews, observations and questionnaires. The reason for using a couple of different research methods is for the validity of the study in form of triangulation of the
collected data. (Lundgren 2010) Action research is thus by nature contextually specific and inductive; it tells specific stories rather than generalized truths.

My part in this project has primarily been about designing the methods that are used in each iteration and my colleague, a PhD student, has primarily been working with the game design, in collaboration with me. As mentioned before, this study contains three design iterations. Each of the iterations has the iterative design structure of; design – study – analyze. In the design phase of the first iteration, we (the mobile life team) designed the methods that were used during the workshops. The design consisted of planning which methods to use, how we could manipulate them, and how the participants in the workshops would use the methods, all of them with the purpose of achieving our goal (An engaging location-based storytelling pervasive game). In the study phase, I worked with the designed methods together with the participants. I observed and recorded the process; what we were doing, what we were saying, and what we achieved. The gathered information was supported with interviews and questionnaires about the process and the results of the workshops. In the analyze phase, I looked into how the methods worked during the workshops and asked questions as: Did the methods help us achieving our goal? What did and what did not work well? Could we have designed them better?

In the design phase of the second and third iteration, where we playtested the prototypes, I designed how the playtest would be performed. What we should be testing in our prototype of the game and how we should test it, as well as, how many participants we would test it on, what I and the PhD student would be doing, and how the participants should play the prototype. In the study phase, we both observed how the participants played the game, and had a feedback discussion where we discussed their thoughts and comments about the game experience, together with possible future improvements. The discussion was supplemented with a questionnaire. In the analysis phase, I summarized the feedbacks from the playtests, made conclusions about the information, and stated what worked and what we should do in the next step, like a wish-list of what should be tested next and what could possibly improve the game.
2 Background

This chapter will introduce basic knowledge and history of game design, storytelling games and site-specific pervasive games.

2.1 Methods of game design

Ever since the first game, there have been game designers. Maybe they did not consider themselves game designers, but someone came up with the first clay dice and the first stone was used as a pawn in a board game. Perhaps they just came up with these competitions to amuse themselves and their friends, but many of the good prevailed games have been played for thousands of years and as far back as the beginning of human culture. (Fullerton, 2008)

The history of game design methods is still relatively young compared to other professions such as the movie-making industry. Kreimeier (2003) stated that the field of game design methods is just in the beginning of establishing its concepts and techniques. He compares the method of movie-making with game design and asks questions such as; how is movie-making methods applicable to making games, and how can movie-making methods be adapted to fit the design of interactive games?

The game design document is one of the early suggestions to define a game design method. It is used to organize the development process. Church (1999) suggests the use of "Formal Abstract Design Tools"; the purpose is a common vocabulary used as an instrument for designing games. Falstein and Barwood (2002) introduce the "400 project" with the aim of producing series of rules that will work as tools, providing instructions to the designer. Game design patterns were the focus at the CGDC conference in Tampere. Patterns can be used as a template where experiential knowledge is written (Holopainen & Bjork 2002).

Outside of the above mentioned game design techniques there are two main approaches to developing games. The old fashion one is the "waterfall" methodology which is characterized by the sequential one directional work process, just like a waterfall. It is few iterations in the early stage of the design process and therefore also few opportunities for evaluation. The other approach is the iterative methodology and advocates an iterative process with focus on
evaluation and refinement from the beginning to the end of the design process. (Rory McGuire 2006)

2.2 A playcentric design method

Tracy Fullerton (2008) takes the iterative methodology one step further and focuses even more on the player experience. In her book, she talks about game design as a hard challenge. It both requires a playful approach as well as a systematic solution. You have to take the role as an engineer, entertainer, mathematician and social director, and then build a set of rules within which there are means and motivation to play. Fullerton also argue that the art of game design has always been about creating the elusive combination of challenge, competition and interaction that is there to make the games fun for the player. It does not matter if you design board games, folk games, arcade games, or massively multiplayer online games. They all have that important element in common. Her key message is that the most important skills in the game design process are the prototyping, play testing and revising of the system based on player feedback. This is called the “playcentric” approach to game design as it puts the focus on the player experience. A great way to accomplish this playcentric approach is to use an iterative design method that engages the players early on in the design process.

As stated, iteration is really important in the playcentric process, iteration means that you design, test and evaluate the results over and over throughout the development of your game. The following will be a description of Fullerton’s approach to game design. This is the flow of the iterative process, to go through when designing a game:

- Player experience goals are set.
- An idea or system is conceived.
- An idea or system is formalized (prototyped).
- An Idea or system is playtested.
- Results are evaluated and prioritized.
- If results are negative and the idea or system appears to be fundamentally flawed, go back to the first step.
- If results point to improvements, modify and test again.
If results are positive and the idea or system appears to be successful, the iterative process has been completed.

A more detailed description of Fullerton’s design process is described in the following seven steps:

**Step 1: Brainstorming**

- Set player experience goals.
- Come up with game concepts or mechanics that you think might achieve your player experience goals.
- Narrow down the list to the top three.
- Write up a one-page description of each of these ideas.

**Step 2: Physical Prototype**

- Create a playable prototype using pen and paper or other craft materials.
- Playtest the physical prototype.
• When the gameplay of the physical prototype achieves your player experience goals, write a gameplay treatment describing how the game functions.

Step 3: Presentation (Optional)

• A presentation is often made to secure funds to hire the prototyping team and to introduce it to the team members and upper management for feedback.
• Your presentation should include demo artwork and a solid gameplay treatment.
• Because you have not invested in artwork or programming in this stage of the design process your flexibility to either return to step 1 and start over again on a new concept or gain feedback from your funding sources and work on modifying the game to fit their needs, should not be a problem.

Step 4: Software Prototype(s)

• Let the prototyping team begin creating rough computer models of the core gameplay. There are often several software prototypes made, focusing on different aspects of the game. Try to use as much temporarily graphics as possible to reduce cost and time.
• Playtest the software prototype(s).
• When the software prototypes(s) demonstrate working gameplay that achieves your player experience goals, move on to the documentation step.

Step 5: Design Documentation

• Take your notes, ideas and knowledge from the first 4 steps and write the first draft of a document that describes every aspect of the game and how it functions.
• This design document can either be a static document or an online design wiki, which is more flexible and have better collaborative options.

Step 6: Production

• Make sure each aspect of the design is achievable and correctly described in the design document.
• When an initial draft of the design document is completed, move on to production and begin the creation of the real artwork and programming.
• Do not forget the playcentric process during production. Keep testing your artwork, gameplay, character etcetera. During the iterative cycles throughout the production phase, the problems you find and the changes you make should get smaller and smaller. This is because you solved the major issues during the prototyping steps.

• This is the time when most game designers actually design their games, leading to numerous problems of time, money and frustration.

Step 7: Quality Assurance

• By the time the game is ready for quality assurance testing, you should be sure that your gameplay is solid. There can still be some issues, so continue playtesting. Make sure your game is accessible to your entire target audience.

Note that these steps are Fullerton’s view of the design process. We do not agree on every aspect and the steps will not be followed strictly.

The playcentric approach involves player feedback throughout the production process and Fullerton do not emphasize enough the importance of prototyping and playtesting all aspects of the game as thoroughly as possible.

2.3 Storytelling games

In this thesis, we focus on storytelling games; games where the players spontaneously making stories in collaboration with each other. There is not much research to be found about storytelling games, and therefore no clear definition of storytelling games has been made. But there are a couple of games that fall into the storytelling category. This game genre should not be confused with interactive storytelling, which tells a story from the game to the player but in an interactive form. The game I am your body can be described as a combination of the two genres.

Here is a presentation of some storytelling games taken from Xiaoxi (2009) to get a feeling of what storytelling games are and how they work.
The game “LINE”

Each player writes one sentence of a story, which starts with the last word from the former player. The last word of their sentence will become the starting word for the next player. When the game is finished, the whole story is in a special form without the dramatic structure.

Group Telling

Group telling is a game where a group of people writes a story together. Each day, one person has the task to write one hundred words. The next day, another writer reads the story and continues with a new one. The playtime of this game is decided by the authors and is usually around one month. For example, with four players and everyone is writing seven pieces, the story has 28 pieces upon completion. The challenge is not only the creation of a story, but also trying to finish the work together.

Once upon a time

This is a card game with two to six players trying to finish one story by using the elements provided by the cards. The elements in the cards help the story continue. Different cards represent different subjects in the story, such as; persons, objects, places, aspects and events. From a different deck of cards, each player is also dealt a single "Happy Ever After" ending card, to be kept secret from other players until it is used. The object of the game for each player is to use their cards in telling a story and, when all the player’s cards are used, finishing the story by using their Happy Ever After card.

2.4 Analysis of previous designs

One engaging aspect of these games is that the players create something from their imagination. Another one is that the end result from two different play sessions will never be the same. A similarity between these games is the continuing on each other’s stories and that the players help each other with inspiration. The difference between Once upon a time and the other two games is that it is competitive and every player tries to win for themselves, while the other two games have the goal to create a story together.
The game “I am your body” has some similarities to these games. The most apparent one is the creating and building of stories. One player continues a story from another player’s previous contribution. Another similarity with “Group Telling” is the time scope. Both games do not limit themselves within days or weeks and can theoretically go on forever. Once upon a time have the game element of using different subjects for continuing the story. Our game has the opportunity to have a similar game element by having the option to ask questions between the players about anything and can be specific subjects as places, persons or events.

2.5 Site-specific pervasive games

*Pervasive games* is a relatively new term and previous research has shown that it has many different definitions. According the authors of – *Pervasive Games Theory and Design* – (Montola, Stenros, Waern. 2009) the term pervasive game was coined in 2001, when pervasive games as *the Beast*, *Majestic* and *botFighters* were launched. There have been releases of games before that fall into the category of pervasive games, but these three were the first games that were launched as such. Since 2001, both experimental and commercial pervasive games have been produced everywhere and today they form a varied set of pervasive game genres. At the same time Schneider and Kortuem (2001) tries to explain the term *Pervasive game*:

“We Define a Pervasive Game as a live action role playing (LARP) game that is augmented with computing and communication technology in a way that combines the physical and digital space together. In a Pervasive Game, the technology is not the focus of the game but rather technology supports the game. Although technology is ubiquitous in a Pervasive game its role is a supporting one and thus the technology is kept as unobtrusive as possible”

A later and a more non-technical definition of the term are done by Montola et al. (2009). They define pervasive games as: “A pervasive game is a game that has one or more salient features that expand the contractual magic circle of play spatially, temporally, or socially”. To understand this definition you have to be familiar with the term, *The Magic Circle*, which was first introduced by Huizinga (1938) and is a way of describing play as worlds within the world, where different rules applies and another time exists. Later Katie Salen and Eric Zimmerman (2004) talk about the magic circle as the boundary separating the ordinary from
ludic and real from playful. The magic circle is, in other words, the clear separation between play and ordinary life. Pervasive game is about blurring this frame. Pervasive games expand that magic circle in one or more ways. The time and place is not certain during the gameplay and the participants are not definite anymore. They pervade, bend and blur the traditional boundaries of game. Pervasive games can be played anytime, anyplace, and by anyone, and it is hard to separate the in-game actions from nongame actions. Theoretically, the whole world could be the playground for a pervasive game. In difference from ordinary games that often try to be isolated from the surroundings, pervasive games try to incorporate the environment and context into the game. Objects, vehicles and properties from the real world become a part of the game. A common situation in pervasive gaming is the involvement of outsiders. They can participate in many different ways, from spectatorship to full participation. The outsiders can be obstacles to the player or they can be crucially needed for the player in order to succeed in the game. (Montola et al. 2009)

*Location-based games,* is a term that is used within the field of pervasive games. Kristiansen (2009) uses the terminology: *Site-specific games* (SSG). SSG and location-based games are closely related, but as a genre, SSG does relate to the game *I am your body* even more than *location-based games.* I will use SSG from now on. Kristiansen explains the word as: SSG are games that focus on including the site in the game together with the locomotion of the players. His definition of the term SSG is:

> “A site-specific computer game (site-specific game) is a game genre supported by appropriate use of technology, where the site in the form of place and space is part of the players embodied performance in the game.”

Kristiansen relates SSG with *site-specific performance* and indirectly explains the term SSG as a genre that is about letting the players’ ideas and bodies interact with the place. Sites have big open spaces, confined spaces and places loaded with history and cultural background for the player to interact with. A game that is designed for a specific site not only adds the game to the site, but the site becomes a part of the game. The link between the site and the game is necessary for a game to not only be a computer game, but to perform in the real world as well.
Montola et al. (2009) have a more narrow way of looking at SSG. They say that a SSG must be adapted to each new location and setting and a crucial part of a SSG is to be able to find the historical and ambient meaning of a specific place as well as using the construction, architecture, or geography for raising the game experience. SSG are able to increase the player’s understanding of a place, rather than just randomly adding content to an arbitrary location. A game designer can for example design to encourage the players to look into local history and culture, by carefully selecting a site that reflect upon the history and feel for that place. The SSG can also be used as education of local places and community buildings, as well as artistic and political messages.

The game I am your body have similarities to these definitions for both the genre of pervasive games and the genre of SSG. The game combines the physical and the digital world but the technology has more of a supporting role. A clear line between play and ordinary life does not exist. The word “anyplace” is the most critical difference between pervasive games and SSG.

The game falls into both these genres but in different stages of the game, the important sculptures that is a big part of the game makes it a SSG, but the flexibility to interact with the game from different platforms, anywhere, anytime makes it a Pervasive game. The city in general and the sculpture more specifically try to make the players engaged in the local history and culture and get a feel for that particular place.
Kristiansen (2009) created a model that he named *The Site-Specific Games Triangle*. The model is spanned by three properties: The game, the site, and the locomotion.

The purpose of the model is to show the genre of SSG. The balanced SSG are in the middle and towards the points are the games that focus more on one or two properties. This figure illustrates what type of game *I am your body* is. The place and the locomotion are well integrated into the game design, but it has few game elements. According to this model it can still be considered a site-specific game. Note that the placement of the game, in the model, is a subjective decision from my part of what I believe are the main properties of the game.

![Diagram of the Site-Specific Games Triangle](image)

Figure 2. *The Site-Specific Games Triangle with some modification*
3 Method

This chapter will discuss the methodology outline of the thesis, as well as the research methods that were used for gathering the empirical information.

3.1 Research methodology outline

There are different ways in science to connect theory and empirics, which also can be called the relation between theory and practice. The two well known methodology strategies that are used for this purpose are the deductive and inductive approaches (Holme and Solvang, 1997). This study primarily used a more unfamiliar research methodology named action research.

The deductive approach starts from the theory and the knowledge in a particular field and from that derives or deduces hypothesis that will be verified or discarded through empirical research. A supporting study will fail to prove it wrong, rather than prove it true. The theory and the stated hypothesis are then the foundation for, as well as controlling the data collection. The inductive approach is in essence the opposite from the deductive one. This approach is based on the idea that the theory is the results from the empirical research, which is then used to conclude generalizable conclusions and contribute to new theoretical stand points. (Bryman och Bell, 2005)

Action research is a form of reflective research where the active practitioner studies, analyzes, reflects on and improves the researcher’s own work. There are different views on different steps in the action research process, but the main steps always include; planning – acting – observing – reflecting. It is similar to the iterative design process. Sus Lundgren (2010) uses the same methodology approach as I, and her explanation directly relates to my research approach. She writes;

“Since this research consists of an exploration, rather than explicit empirical research, it is framed within the context of action research; a natural approach for me as designer, since the iterative and active approach in action research very much resembles the generic approach to design.”
The approach used in this study followed the main steps in action research in the following way. All the iterations began with a design part where the planning of the design methods and workshops took place. After that I participated in the workshops, either by being one of the participants or the leader of the workshop. In the process I gathered information through observations of the participants, interviews, questionnaires and by my own experiences. After each workshop the information was evaluated and reflected upon. The planning of the following iteration was then based on the evaluation and reflection.

A couple of quality criteria for action research are discussed by Herr and Anderson (2005): Outcome Validity is about to which extent the actions lead to change or to solving the problem that was the reason for the study. Process Validity concerns whether the problem is stated and solved in a way that we can learn from. Democratic Validity focuses on how the stakeholders are involved in the research. Catalytic Validity points to how the action research process affects researchers’ and participants’ new way of looking at reality, aiming to change and improve it.

Action research has its pros and cons, just like any other research method. One advantage is that the approach is directed explicitly towards practitioners, the researchers research themselves. The findings are applicable to the researcher’s own situation trying to solve her or his actual problems (Costello, 2003). An argument against action research is the validity and reliability of the collected data. Just like other research projects, this can partly be solved by data triangulation, which means collecting data from many different sources (Bell, 2007). In excess of the action research approach, my data triangulation consists of interviews, questionnaires and audio recording of the participants.

### 3.2 Qualitative and quantitative data

When dealing with empirical information the data is either collected qualitative or quantitative. But it can also be a combination of these two in the same study, one method does not exclude the other. Which one to chose is more of a strategic decision. These choices depend on problem formulations, resources and research experience. It is a question of which method that is able to illustrate the problem area in the best possible way. (Holme och Solvang, 1997)
The problem formulation and the context of the study makes it natural to use a qualitative data collection. The people that can give me relevant information for the study are the ones that are involved in the project and the participants from the playtest sessions. A qualitative study gives a deeper understanding of the gathered information, whilst a quantitative approach gives quantitation of the information (Trost, 2002). Since it is a form of case-study, qualitative and deeper knowledge and interpretation of the information is more adequate than quantitative results.

### 3.3 Interviews

Interviews are the most common method in qualitative research, some of the reasons are the high level of flexibility, and the possibility to adapt to the researcher’s time. Interviews can be *structured*, which is most common in quantitative research, *semi-structured* and *unstructured*. The two latter interview techniques are generally used in qualitative research, and the purpose is to get the interviewee’s own opinions and viewpoints, the structured interview technique is more about gathering short and clear answers. The difference between unstructured and semi-structured interviews is that the former performs like a regular conversation with some head questions as a base. While the latter gives a lower degree of freedom for the interviewee and the researcher uses a list of different subjects to discuss. (Bryman och Bell, 2005)

I chose semi-structured interviews because of the flexibility and the relatively short time aspect. The interviewees are only available for two days during the first iteration and have a full schedule. Therefore, the time frame of the interviews is limited to the lunch breaks. It also gives me the interviewee’s own view, which is the type of information I want from them. The reason for semi-structured before unstructured interviews is the time limit and therefore want to have more control of the interview, both as regards time and subject.

### 3.3.1 The execution of the interviews

The selection of the interviewees and the questions were chosen with regard to the research goals and the questions that were stated there. The purpose was to get a variety of different backgrounds for a broader view and feedback of the methods that were used and the process during the workshops. Three interviews where made with three different people: A stakeholder of the project that works as a producer for “Kista Theater” and is a coordinator for
the project. A developer at SICS Game in Gothenburg that have worked a lot with both the design and the technology of pervasive games. A principal scientist working at Human Practices & Design Group at Nokia Research Center in Finland, who is a co-author of the book “Patterns in Game Design”, and his recent work includes looking at the design principles of pervasive games.

The question template for the interviews can be found in the appendix. The plan was to ask the questions from the template and then let the interviewees answer them freely. Sometimes clarifications had to be made, when there were misinterpretations of the questions. These clarifications were, for the most part, minor and sometimes follow up questions were asked to the interviewees for better knowledge and understanding of the information. There was no preparation for the interviewees before the interviews. They had not seen the question template before the interviews and were asked for participation the same day. All three interviews were made in person and recorded with a digital Dictaphone. The recording with the Principal Scientist from Nokia was unfortunately disturbed by background noises and some of that material is unusable. Note that only the empirical information that is relevant for the study will be presented in the thesis, some of the answers will therefore not be shown.

### 3.4 Questionnaire

A Questionnaire can be formed in different ways depending of what purpose it has. The questions in a questionnaire can be of many different types, but they can be categorized into two major categories; open questions or alternative questions. In a quantitative study when there are a lot of participants in the study a questionnaire with alternative questions is preferable. It is easier to categorize and evaluate the answers and the simple answers are used in more of a statistical way. Open questions are preferable when the purpose of the questionnaire is to get the participants own thoughts in the subject area, both bad and good ones. This type of questions is more relevant in a qualitative study. The problematic side with open questions is that analyze of the questionnaire’s answers is harder than with the alternative question types (Bell, 2007).

The limited time made it only possible to do three interviews and to supplement that empirical information it was decided to do questionnaires as well. I choose to use open questions and
the reasons for that are both, the relatively small number of participants that would not give me any relevant statistical base, and the problem formulation for the study that requires the participants own reflections for a deeper understanding of the situation. The first questionnaire consisted of nine open questions about the two-day workshop (iteration one). It was first handed out in the end of the first day to the sixteen people that participated, in order not to make the participants mix up the two days. The direct feedback I got was that they were tired and suggested that I should send them an online questionnaire, so I made an exact same online questionnaire in Google Document and sent it out after the two workshop days, which resulted in an equal amount of answers from the paper and the online questionnaire. It was sent to eighteen people altogether and seven people answered. As I suspected, some of the participants had mixed the two days together, which made the analyzing a little harder. The next questionnaire consisted of eight open questions about the experience of playing the game prototype, they had approximately twenty minutes to answer the questions. It was handed out to seven participants after the first playtest of the prototype (iteration two), seven answers were received. The third questionnaire consisted of five questions that also were about the player’s experience of playing the game, they got about ten minutes to answer the questions. It was given to six participants after the playtest of the second prototype (iteration three), six answers were received. Only the relevant information will be presented in the thesis, for all questions and answers see appendix.

3.5 Observations

Observations are often used as a complementary research method for collecting empirical data. Observations can give information about individuals and groups of people that otherwise would be hard or impossible to gather with other methods. As Nisbet & Watt (1980) point out, interviews give important data, but they only tell us what people perceive is happening and not necessarily what actually happens. Observations can be useful if you want to know if people really do what they say they are doing or if they behave in the same way they say they do. (Bell, 2007)

In action research it is almost impossible to not observe the participants during the studies, the question is if I want to use that empirical information in the thesis or not. Except the positive arguments that were stated above, one negative side is the problem with objectivity, it is
unavoidable to not perceive the observations from my perspective and the information will be based on my view of the situation. I decided that the pros out-weighed the cons and together with interviews and questionnaire the empirical information could still be at a reasonable objective level. I supported my empirical data collection with observations in all three iterations. In the first iteration, with brainstorming sessions during the two days workshop, I took notes from my observations while I was in one of the brainstorming groups. A digital Dictaphone was also used during these sessions to supplement my observations. Every time the Dictaphone was used I asked the participants if it was okay with them, and it was never a problem. In the second iteration, with the first prototype testing, we videotaped the play sessions and the subsequent feedback discussion with a small handheld digital video camera, it recorded both picture and audio. My colleague supported me with taking notes of his observations of the playtest. In the third iteration, we gave each group a digital video camera to document their play sessions. A Dictaphone was used to record the subsequent feedback discussion.

3.6 The iterations

As mentioned before, this study contains of three design iterations. The iterations have the structure of; design, study, analyze. The first iteration was about generating ideas for the game design. In the design phase we decided to use brainstorming as general method. The study phase was about eight hours long with sixteen people. The day contained of four sessions: Presentation of the project with the game and the agenda of the day, the idea generating session in small groups with game concept presentations, the evaluation of the game ideas and the creation of one concrete game for each group, and last, a presentation of the concrete games each group created. In the analyze phase the results from the brainstorming day was discussed and one implementable game design was decided in collaboration with the stakeholders.

In the second iteration we started with designing a pen and paper prototype of the game that primarily contained of stickers, yarn, pictures of Kista and pen and paper. The playtest was around three hours long with eight people, and the whole test was performed in a room (40 square meters). The test was divided into three parts; first, an introduction that included a speech about the background to the project, inspiration for location-based storytelling and the
rules and concepts of the game. Second part was the actual playing of the game, and the third part was a discussion with the participants with an evaluation of the player experience. The material from the playtest was then analyzed and a reflection and planning document where created for the third iteration.

The third iteration was the second prototype testing, here we wanted to implement the game design with the technology and try it in a real environment. The playtest ran for two hours with six teenagers in the area of Husby. The technology used was mobile phones, with support for web clients for accessing the game, and digital video cameras for documentation. The test started with an introduction to the technology and how the game was intended to play. Then we divided them into 3 groups, each group got one mobile phone and one video camera. After that, we sent them out in Husby and let them play for one hour. The playtest ended with a discussion of the player experience and feedback from the participants.

One or two more iterations, with more implemented technology, will be made before the game is ready to go public, but that is outside the time frame of this thesis.
4 Iteration one

The first iteration was special in the sense that it involved two different pervasive games. The first day was planned to work only with the storytelling game and the second day of the workshop was planned for a parkour game, which is a parallel project at mobile life. The parkour project is about creating a pervasive game in collaboration with parkour runners and use technology to connect the parkour practitioners and the community together. We used the same methods and, for the most part, the same people participated both days, except for the stakeholders of the two different projects. The material and the analysis of iteration one will therefore consist of empirical data from both the storytelling and the parkour project. Note that iteration two and three will only deal with the storytelling game.

4.1 Scoop and goal of the workshop

The primary goal of the workshop, for the participants, was to come up with game mechanic ideas that could be the base for the game design. A couple of sub-goals had to be fulfilled for that goal. The ideas should be generated given the following preconditions: The game should be a pervasive game, it should have elements of storytelling, and it should be site-specific. The goal for the design team at mobile life and the stakeholders was to gather game ideas that could help us come up with a game design that both could be an engaging pervasive game as well as a story gathering tool.

4.2 Method

To achieve the goals of the workshop and generate ideas we decided to use brainstorming as a general method. To help the participants in the process of generating ideas for the game, we used three different brainstorming tools: “A deck of lenses”, which consists of a deck of cards with different themes and subjects that help the group’s thinking process and can direct the thinking in a wanted direction. We picked out the cards that we felt had most in common with the pre-conditions for the game. “Pervasive design cards”, which have the structure of a picture with a sentence connected to it. The purpose of these cards is to get inspiration to pervasive game ideas. The pervasive design cards are created by a senior researcher at mobile life. Last, “Thinking hats”, which is a well known thinking tool. It provides means for groups
to think more effectively. It has six different hats that represents different states or emotions that the participants will act as, during the thinking process. It could be anything from emotional to creative to the devil’s advocate.

The first brainstorming exercise was planned to run for approximately one hour with four people in each group, the purpose was to generate a lot of ideas, so no criticism of each other or inhabit yourself were recommended during this phase. The *Pervasive design cards* were used during this exercise. Three cards were taken at random from the piles with different themes. At least two ideas should be generated with each set of cards. This was iterated three times during the first 40 minutes of the exercise. The last 20 minutes were for grouping and refining the ideas and two of the best ideas should be written in a game design form. Then one hour for presentation of the initial ideas, with reflection and selection of the best ones. The second brainstorming exercise was planned to run for approximately two hours with six people in each group, the purpose of this exercise was to refine ideas and get a feeling of how it would be like to play the game. The *Thinking hats* were planned to be used during this exercise, where the whole group should use the same hat at the same time and then switch to the next hat when the group is getting stuck or needs a new way of thinking. The *A deck of lenses* was a supporting method in this exercise if the group got stuck or needed a new angle to think from. A draft of a design document should be finished in the end of this exercise. The day ended with a presentation, from each group, of one concrete game design idea.

The differences with the first and the second day are that the second day had the same people in the first and second brainstorming exercise and therefore the second exercise had groups of four people instead of six people.

### 4.3 Empirical information

This section is structured after which category the information falls into. The categories will be represented by the research questions stated in the introduction. The information comes from my interviews, and questionnaires. Last I will present my own experience through participation, observations and audio records.
4.3.1 Stakeholder goals/Preconditions

4.3.1.1 Questionnaire

The questionnaire gave the following information about the preconditions (day one):

Question: What were your thoughts about the introduction and the preconditions for the game?

One person, with a background in computer engineering, answered; “It gave a starting point to work with. However, it was a bit confusing as the preconditions were from different fields. So it was hard to keep all of them in my mind during the brainstorm session.”

One person, with a master of science in Interactive systems engineering as background, answered; “I think the introduction was quite shaky on both days. Perhaps it is hard to convey the game idea in such a short period of time, or perhaps it was vague on purpose to leave us open for brainstorm.”

One person, with a technical and game design background, answered; “I thought that the preconditions were still quite vague which would give us freedom but would pose a challenge too. Also, I still had some difficulties imagining what kind of stories that should be told and in which way participants could be encouraged to share such personal information.”

Question: Did you have any problems generating ideas given the preconditions for the game?

Four participants answered that they did not have any problems with the preconditions.

The person with the computer engineering background answered; “It was hard to combine the preconditions to think of a game. But after some time, you got into the task and the ideas started to come out.”

The person with the technical and game design background answered; “Surprisingly no. Before we started I thought it was going to be tough, but the ideas came along quite nicely.”

4.3.1.2 Interviews

The interviews gave the following information about the preconditions.

From the developer at SICS Game in Gothenburg:
He thought it was hard to know what type of game it was when they started to brainstorm on the basis of the Preconditions, but he also thought that the different individuals, more than the preconditions, affected the brainstorming sessions and how the methods worked.

From the stakeholder and producer of Kista theater:

The methods worked well on the basis of the preconditions, at least in the case of brainstorming and generating ideas.

From the scientist working at Nokia Research Center:

During the first brainstorming day he thought that we focused most of our time to understand the preconditions and the platform we are working with. To understand the situation and the whole picture, what are the possibilities, what is the danger, etc. But he also thinks that, to understand all of this before actually starting with game ideas, helped him a lot.

He did not see any problem between the methods (the material) we used and the preconditions for the game. The cards were made for pervasive games, so they fit in well. On one hand, the cards gave structure and helped to give different kind of views and ideas, on the other hand they also might constrain your thoughts. One problem he considered was that the limitations for what should be in the game were too hard. The limitations for the game were unexplored and it was not any real argumentation why they should be so hard.

### 4.3.2 Design method

#### 4.3.2.1 Questionnaire

The questionnaire gave the following information about the design methods:

Question: What do you think about the methods used during this workshop, what was good and what was bad?

All participants that answered the questionnaire thought the cards worked well, one person wanted to have more time and felt that they did not have time to use the methods in the second exercise. Another person wanted more cards and that the cards would be more alternate with less focus on a specific technology. The same person answered: “The first day we went a bit
too fast into the afternoon. The fragmentation of the groups also made that you had to retell or defend your earlier ideas, so that they would not disappear in incomprehension.”

The person with the technical and game design background answered “Both set of cards were pretty useful. The ones used in the morning provided us with a background around which to create our ideas. With these cards we had something concrete which was good, because everything was still so vague and yet because there were so many strange combinations the cards enabled us to develop ideas, which would not have come up otherwise. The deck of lenses used in the afternoon made us consider game properties which had not been addressed previously. Using them we were able to realize some of the issues and problems of our ideas.”

Question: Are you satisfied with your results from the brainstorming sessions? Please explain why or why not.

All participants except one where satisfied with the results, though one person wanted it to be more of a “fleshed out game concept”. The person, that was not satisfied, felt that they missed the goal and the reason was that they did not really know what they should create, the question was not clearly defined.

The person with a computer engineering background answered: “Yes. Even if the task was quite hard, the cards were a powerful tool and helped a lot to think on concrete aspects to come out with good ideas.”

On the question, if there were any differences in exercise experience between this brainstorming session and the other ones they have participated in, three answered that they had not participated in this kind of exercise. One person wrote that there were differences and that the cards were particularly helpful in this one, but thought it was a shame that they did not have time to use the “hats”. Another person answered that he had participated in both better and worse brainstorming sessions. He liked that this one had a clear convergence phase, but practically it did not work out as planned. The most satisfying brainstorming sessions for him was the ones where the convergence phase was well thought and implemented.

Everyone except two people in this questionnaire had designed games before. The ones, that had not, were the artist and the computer engineer.
4.3.2.2 Interviews

The interviews gave the following information about the methods.

From the developer at SICS Game in Gothenburg:

He had made the pervasive cards himself and felt a little biased. That said, he thinks it is good that the cards give some limitations, however it is too few in each category so they may limit a little too much. The technology cards are for example too few, but at the same time it is easy technologies to work with. He would like to have more categories of cards, for example, which social properties you want out of the game.

He says that even if you have a set of preconditions, these cards help to break the thinking pattern. That you for example not only get stuck on the mobile phone screen and its buttons, but think about the environment as well.

He is happy with the results from the brainstorming sessions. The first day, the second exercise had continued generating ideas, and therefore the time for refinement of the ideas became too short. What he liked more about the second day was that the second exercise that day converted more into a concrete game design.

He thinks that body storming could be a good alternative to brain storming, to begin with a physical version of brainstorming, get it more experienced-based and concrete start to test the stakeholders’ visions.

From the stakeholder and producer of Kista Theater:

She thought the methods worked really well. She thinks the cards were a good tool, at least in her group. It actually worked better than she thought when she first saw the cards, at least for brainstorming and generating ideas. It is hard to create conditions for brainstorming where you should be creative and there she thought the cards worked well. They helped to free your mind and not presuppose games and game ideas.

From the scientist at Nokia Research Center:

He believed that the cards only were material that was used for the methods that you choose to work with. The methods themselves are more how long the session is, how large the group is,
what is the role of the facilitator, what kind of material are you using, which are the different phases during the process, and how do you document your ideas.

What bothered him was that we worked in too large groups, which leads to social loafing. Social loafing means that people only listen and therefore do not contribute with any own ideas. Another problem with too large groups is that when one person talks it blocks the other people’s opportunity to talk. It also blocks other people’s ideas and idea processing, which sometimes takes time. While listening, you focus you mental capacity on the one that talks. Personally he was not satisfied with his results, he felt that it was over just when he started to understand the situation. He wanted to have two hour for himself, to come up with concrete ideas for the game.

On suggestions for other methods to use he thought particularly that we should be smaller groups and that we should try many different methods during the brainstorming process. He also said that it should be more open in the beginning when we generated ideas, and then take the ideas and discuss them whether they fit into the conditions or not. Instead of being so constrained from the beginning and then narrow it down even more. Body-storming was also something that he suggested, to physically go out and pretend to play, like a very primitive prototype.

4.3.3 Stakeholders

4.3.3.1 Questionnaire

The questionnaire gave the following results about the stakeholders:

There were no particular questions about the stakeholders, but on the question: What was good and what was bad? One person, with an interactive system engineering background, answered:

“On both days, the "stakeholders" should have been rotating from group to group to help throw out and choose concepts quicker so that refinement could be done quicker in the afternoon.

I think all four groups came up with the same concept on the second day. Namely that which catered directly to the description of what Marcus said.”
Marcus is one of the stakeholders for the parkour project.

On the question about which ideas they like, one person wrote that he, on the second day, had issues about what the whole workshop group came up with in the afternoon exercise. He disliked that all groups came up with something very similar and felt that all of them share the same issues. The ideas were focusing more on designing a community with some playful aspects rather than focusing on designing a game. He also felt that most of the ideas from the morning exercise were not used.

Question: Are you satisfied with your results from the brainstorming sessions?

The person with the Interactive system engineer background answered: “Yes, aside from the fact that each group would probably have benefited from having a visionary or "stakeholder" to guide them in the right direction.”

4.3.3.2 Interviews

The interviews gave the following information about the stakeholders.

From the developer at SICS Game in Gothenburg:

It should have been more stakeholders that could be around and share their visions of the projects. Or at least have stakeholders that rotated between the different groups during the brainstorming sessions. It worked better the second day when Marcus walked around between the groups and could give his view of the project. The first day he got a stakeholder in his group in the afternoon exercise and first then some unanswered questions were solved. From that point new game ideas were developed instead of making the existing ideas, from the first exercise, into a concrete game idea.

From the scientist at Nokia Research Center:

He wanted to have more stakeholders with information about the prerequisites of the different projects, now it often was uncertain what the goal of the projects was about. This was especially evident the second day.
4.3.4 Observations / own experience

The group I worked with had a good use of the pervasive cards in the first exercise the first day. A lot of potential games came up. The group picked four cards three times and each set of cards generated a couple of game ideas. We put more focus on the cards than on the preconditions for the game. The group did not consider some of the preconditions in the first session, for example the storytelling was for the most part included in the ideas, but the site-specific precondition was often forgotten when the pervasive cards were used. It resulted in a wider range of ideas, but most of them could not be used in the game, since the ideas did not include the site.

In the second exercise I worked with another group of six people, but with a stakeholder this time. What happened here was that instead of continuing to work with one of the ideas into a concrete game idea, with use of the two methods; *Thinking Hats* and *A Deck of Lenses*. A discussion was directed towards the preconditions and what the stakeholder wanted to do. The result of that was that the group now started to understand what the stakeholders wanted and again started to generate ideas instead of working on a concrete game idea, from existing ideas. We started to use *Thinking Hats*, but since the groups thinking mode was towards new game ideas instead of refinement it was not that successful.

The results from the first day’s workshop were a couple of unrefined game concepts that unfortunately were too far away from the stakeholders’ view of the project goals. Some ideas from the workshop were used by the game designers, but most of the actual game design came from the game designers themselves in collaboration with one of the stakeholders. The big difference between the generated game ideas and the stakeholders view was that the stakeholders wanted it to be more of a story gathering tool, rather than a storytelling game.

The first exercise of the second day, I was in a group with one of the stakeholders. What happened here was that the group got feedback from the stakeholder during the brainstorming process. We did not get the wide range of game ideas that we got the first day, but the ideas were of higher value to the project. We could now use much more solid game idea that we picked for the second exercise, and refine that one together with one of the stakeholders. Note that we, in the second day, used the same groups for the first and the second exercise. One interesting point in the second day was that the stakeholders walked around between the
different groups and the end result from each group after the workshop was very similar. The
difference between the first and the second day was that much more of the ideas, that were
generated the second day, actually were used in the real game design.

4.4 Analysis

4.4.1 Stakeholder goals/Preconditions

It is clear that the preconditions did not really get through to the participants of the workshop
after the background presentation. Some of them thought they were vague on purpose and
some of the participants that got the preconditions thought it was confusing because they were
from different fields. When the idea generating began none of the participants did have any
problems generating ideas given the preconditions. One reason could be that the presentation
and arguing of the preconditions were too vague. What strengthening this assumption are first,
the Nokia researcher’s comments; that the first day was about understanding the preconditions
and the platform we are working with. And second, the results of the workshop. That the game
ideas that were made were too far away from what the stakeholders wanted. A problem here
could be the fact that the stakeholders wanted a story gathering tool, but they did not
emphasize that enough in the presentation and during the workshop. Another argument, for the
lack of understanding the preconditions, is the second exercise of the first day, where it was
more of a discussion with the stakeholder, rather than refining the game ideas.

A conclusion that can be drawn from this is that the knowledge was too vague from the
participants’ side about the preconditions and the stakeholders’ goals. It is hard to say how
much the actual preconditions (storytelling and site-specific) affected the outcome of iteration
one.

4.4.2 Design method

Everyone liked the pervasive design cards in general, they helped the participants to be
concrete and gave a background which to create ideas from, and it helped to break the thinking
pattern. Some things the participants disliked with the cards were that the technology themes
were too strict and the cards should have more categories, so they have a wider range of
limitations. One person said a deck of lenses helped them realize the issues with their game
design, though both the *thinking hats* and *a deck of lenses* were too unused to analyze any further.

More interesting were other parameters such as, group compositions, session times, role of the facilitator, and the different phases during the process. Some things in the design that have to be considered: Work in smaller groups to avoid social loafing and idea-blocking. Have a clear divergence and convergence phase and stick to it, so the refinement part gets enough time. Try to use many different methods. When it comes to pervasive games, body-storming is a preferable method to use, get out in the physical world and get a more concrete start to test the stakeholders’ visions.

A conclusion that can be made is that the cards work really well for generating ideas, the problem is that they do not consider the preconditions that much. So on one side, a lot of game ideas are made and the participants are satisfied, on the other side it is hard to consider the preconditions at the same time, especially if the preconditions are unclear for the participants. Another conclusion is that it is important to consider other parameters as well to get the most out of a brainstorming process, shape the parameters after the preconditions and goals of the project.

### 4.4.3 Stakeholders

Two major issues could be found about the stakeholders’ involvement. On one side, it is clear that most of the participants of the workshop wanted to have a stakeholder around more often, to guide them in the right direction or help them choose concepts quicker. The problem, that arises when a group lacked the information from a stakeholder, was that the design ideas went too far away from the stakeholders’ visions and goals of the project. The refinement exercise became an idea generating exercise when the participants got information from the stakeholders too late and no satisfying concrete game concept were made.

On the other side, when one of the stakeholders, the second day, walked between the different groups and shared his visions and goals, all the game ideas were very similar and directed closely to the stakeholder’s vision of the project. The concrete game concepts that were presented after the exercises were all very similar and with few game elements.
An interesting result from both projects is that both, from the beginning planned games, became a community site and a storytelling activity with very few game elements. A reason for this could be the strong visions and goals from the stakeholders and that the stakeholders do not have any background or knowledge about game design.

5 Iteration two

This is the first prototype playtest of the game that has been developed by the game designers at mobile life in collaboration with the stakeholders from Kista Theater, with inspiration from the game ideas from iteration one. Notable: In the game design discussions between the game designers and the stakeholders most of the ideas from the brainstorming sessions were thrown away in preference for the implementation of something that were close to the initial ideas, that had been discussed before the first iteration. Primarily the game elements were taken away.

5.1 Scoop and goal of the workshop

This playtest were held at Prolog in Västerås, which is a convent for live role-playing, where people come and listen to seminars, attending workshops and try different type of games. The purpose of this workshop was therefore to test the first prototype of the game *I am your body* and investigate if the game mechanics are fun and engaging, but also to give the people from prolog, that participates in the playtest, a fun experience. The aspects of the game that we primary wanted to test were if the storytelling mechanics worked and if the place affected them, for example if the place helped them get inspired to write stories.

5.2 Method

We first planned to test a technology supported prototype in this playtest, but the time between iteration one and two was too short so the software for the mobile phones was not finished in time. We then decided to create a full “pen and paper” prototype of the game.
5.2.1 Preparation

We decided to have between 8 and 18 players and schedule for three hours. No less than eight persons because the players are dependent of each other for the game to be fun, no more than 18 because they would not fit into the room where we held the workshop and we did not have material enough for more participants. The material we used were: six scissors, a lot of post-it notes, 20 pens, three A4-paper-blocks, 24 pictures of the Kista area printed on A3-papers, six moving boxes, and a lot of yarn. We wanted the stories to be connected to each other and see how the players used and reacted on each other’s stories. Here we used the yarn and the post-it notes and each player draws a line with the yarn from the story they continued from and then stick it to the floor with the post-it note where they had written their own stories on. Each note would also have four numbers: Which thread, who the writer was, how many stories the writer had written, and one that represented the location where the post-it note were placed. One of the reasons for this was so we could reuse the stories and put them in a database for the next playtest. Another reason was so we could analyze if the place affected the stories in some way. To get a feeling of being in the Kista area, we took pictures of four different environments around Kista. Then we glued them on the six moving boxes, each environment represented one side of the box (four sides). Then we placed the boxes around the playing field, when a player looked in one direction, the player saw one type of environment. To know which number that represented which location, we taped the numbers, one to nine, on the floor where number one was in the upper left corner and number nine in the lower right of the playing field.

5.2.2 Performance

We started the playtest by introducing us and the project, to the eight people between 20 – 35 years old that participated in the workshop, and then a little inspiration for site-specific storytelling by talking about the situationists. After that, we gave them our vision of what the game would go towards in the next step. Now it was time to go through the rules and game mechanics: We had two different stories to start with, one of them was more of a fairy-tail while the other one more described an ordinary life situation, to get contrast between them. The participants were divided into two groups, were each group played from opposite story. They were told how the yarn and the post-it notes should be used, two different colors of the
yarn were used to represent the two different stories. The game was divided into three phases, each phase would be played for approximately 40 minutes each. In the first phase each group started from their starting-story, which was placed in the opposite corners of each other. They were only allowed to continue from their own group’s post-it notes (stories). After the first phase, when the floor were full of yarn and post-it notes, it was time to switch side and continue with the other group’s story. In phase two they should try to continue on the different threads that the other group had created, instead of working on the starting-story. The purpose of this switch was to investigate if it was more fun or engaging to build up a story almost from the beginning or continue on created threads that they had not followed before. In phase three it was time to use all the created threads (written post-it notes) and from them create a new story or a summary story from the notes. The workshop ended with a short presentation of the stories from phase three and then a feedback discussion that ended with a questionnaire.

Figure 3. This is a picture from the first phase of the playtest around 30 minutes in.
5.3 Empirical information

The reflection and analyze from the observations, questionnaire and feedback discussion gave the following results:

The Participants were positive about the story system. They thought it was fun to continue on each other's stories, both to write a continuation themselves and see what others would continue to write on their own stories. Most of the participants did not think it gave them that much to have photos of different environments in the room. To just see a small picture is not enough to get a sense of place. They wanted to hear, feel and smell as well. However, a few participants were inspired by the pictures and thought they did help. On the other side did everyone prefer real environments and wanted to play the game in real environments. Some thought it was annoying to keep up with post-it notes and thought the numbers on them were too complicated and would have preferred a technical solution. For example, a good tool to provide rapid responses like: “Here is another author” and “someone has answered on your note”.

Some thought it was too little interaction between the participants. Long moments of writing were kept alone in silence. They wanted to work more in groups and would have liked to have more contact with other participants during the time of writing, e.g. to meet and talk to each other. Interesting here is that it was not actually said anything about that you could not talk to each other during the time of writing. It was something that the participants decided for themselves. For some reason, it was very quiet during the first two moments, especially the first one.

There was disagreement regarding the third moment, when you should write up a story of the post-it notes. Someone thought it was the most interesting moment, while others found it difficult to make sense of it and therefore thought that moment was not that fun.

Several thought there was a lack of inspiration in the introduction, and too little input while playing that could give further inspiration, "We soon used the same inspiration again". One reason may be that they were in a room of 5x5 meters and had 24 pictures to get inspired by. It is also interesting to comment on the fact that the participants did not say anything about the lack of actual game elements.
Here follows the conclusions and recommendations for the next prototype testing:

The story system works and is fun, but it needs to be implemented. We need to make it more user-friendly and test how it works with technology. The participants missed real-world environments to get inspired by and think it would give more to have that. We need to test the game in real environments, and preferably in the actual location it is designed for. A more engaging introduction and more input to the participants during the game to get them more involved and inspired.

Things that we wanted to implement for the next prototype testing were; a working system for telling and get access to stories, even though they are outside and walking around. The mobile phone as a platform is probably the best solution. We wanted the stories to show up as the SMS conversation in the iphone mobile, so the different story threads were easy to follow. The location should provide access to different stories / threads, so the place would be a bigger part of the game. Many stories / threads could be linked to a specific place, these stories could be obtained from a list and then be selected depending on the topic you want to continue on. The aim was to get the game, location / direction dependent, that it actually does matter where the players are. We wanted to implement as much user-friendly technology as possible in order to get the game experience as fluid as possible. We did not want the players to have to deal with Meta information that is both tedious and takes time, Meta information is for example the four different numbers on the post-it notes. It should also be easy to switch between stories and follow the different threads directly in the mobile phone.

Another part of the game that was important to test in the next prototype test was the site-specific moments, to get a real experience with real environments in order to give the participants an opportunity to really be inspired by them. Play it in environments where the game is supposed to take place.

5.4 Analysis

In this iteration we found that the storytelling part of the game was fun and engaging, both to continue on other’s stories and to get feedback from the players own stories. The system design also made it easy to store and reuse the stories, even though it only contained of post-it
notes. The game has, in this stage, good prerequisites to meet the requirements to be both engaging and a tool for collecting stories. It also meets the storytelling precondition.

The site-specific element did not work out as planned in this playtest. It is clearly not enough to get a feeling for a place or get inspired by a place just through pictures, at least not if you want to get inspired to write stories. The site-specific element is something that has to be tested further to get any real feeling of how it affects the game experience.

The fact that the players did not say anything about the absence of game elements could mean that it is fun to play even if the prototype of *I am your body* in a theoretical meaning is more of an activity than a game.

This playcentric iteration gave a lot of satisfying inputs for the game design. It helped us with both refinements of existing ideas and generated new ones.
6 Iteration three

This is the second prototype of the game. In this iteration we primarily wanted to test the technology platform and how the game was to play in real environments. In this Prototype the game was technology supported with a mobile web client that could be accessed through an iphone or an android phone. Note that this is not the complete implementation of the technology for the game. In this stage, the interface of the web client displays the stories (posts), from playtest one, which we added to the database and a Google map of Husby. The stories where digitally placed in different location on the map and could be seen on the Google map interface. The purpose was to get the stories connected to a place. The player input to the game in this stage was text messages that could be written directly from the interface. The things that could be done from the interface were: Read the startup stories, follow the different story threads, comment on and add posts on each story, and see where the stories were placed in Google map.

Figure 4. Screenshots from the interface. The left one is a post and the right one is the map showing where they were written.
6.1 Scoop and goal of the workshop

The second playtest was held in Husby with youth from the local elementary school. There were primarily two things that we did not get any satisfying answers of in the first prototype testing: How the game worked with technology and how the place and environment affected the game. The purpose of this workshop was both to get feedback from a younger player group, if the player experience was different for them, and to test the game with technology support and how the game was experienced in a real environment.

6.2 Method

6.2.1 Preparation

We had access to three mobile phones that we knew the technology platform would run on. We therefore decided to work with six teenagers, around thirteen years old, who we divided into three groups of two. In addition to the three mobile phones we wanted each group to have one digital video camera to document the session. The reason for the group of two was that the participants could help each other with the technology; one could use the mobile phone and the other one document with the video camera. The plan was to have an approximately two hour session with 20 minutes introduction, 60 minutes play session, and end with a 40 minutes evaluation.

6.2.2 Performance

The introduction started with an explanation of the technology, how the mobile phone platform interfaces and the digital cameras worked. We described how the game was intended to be played with the storytelling and the site-specific elements. That they have startup stories and shorter stories placed around Husby that are shown on the map interface. We divided them into three groups with different starting conditions. One group would start from a startup story, one group would start completely without any startup story, and one group continues on the story threads from the first playtest. The purpose of different starting conditions was to see how they affected the game play. We gave the participants a couple of minutes to understand the technology before we let them out in Husby to play. During the 60 minutes play session we wanted the players to be as independent as possible to see how they engaged different
situations of the game and how well they could handle the technology. Throughout the 40 minutes evaluation we discussed the participants’ experiences during the play session, how the different starting conditions and the site-specific stories affected the experience. They also had the opportunity to think freely about how they would want an activity like this to look like, with storytelling and site-specific elements as conditions. The workshop ended with a questionnaire together with juice and cookies.

6.3 Empirical information

The feedback from the questionnaire gave the following results:

Most participants felt generally that the exercise was fun. Someone thought it was fun that everyone walked around and went to different places. Two people thought it was fun to film and using video camera. Most had no concrete negative feedback about the game. Many gave the answer "nothing was boring." One participant felt that it was boring to read about stories, and another thought it was boring that there was so much text. Most participants wanted more adventure elements and excitement. One suggested the use of characters, another for more pictures in the game. One person wanted to interview people and to have more time. People from other schools also came as a wish to have more of. Someone thought it was too much walking. Above all the participants wanted to see less of the writing and reading texts, and instead have more of pictures and similar stuff like that.

The group discussion gave the following results:

The participants want a symbol or equal on the map in the phone that shows where you are and where you go. They also want a more mission based structure, such as helping people in the center. None of the groups withstand to read the previous posts, they either did not understand it or it was boring for them. The participants thought the posts were written for grown-ups, instead they want more children to write and have more adventurous posts. One group did not go to those places that were designated on the mobile map, but rather stayed around the center so they would not get lost. Another group tried to locate the sites, but once there they chose to continue writing about the first post they were first asked to read, or
something else that they saw at that location. One possible reason that they did not use the site as intended is that the stories that were placed at a specific location did not have any connection to that place.

The interface was a bit too text heavy for the kids to really get into it, the majority of the time they documented through pictures and video instead of integrating with the web client. When the participants used the interfaces it seemed as they understood the systems with the different story threads and how to write entries that correctly were connected to a specific thread. The only participant that had something to comment on the technology said "I was pissed on the phone when you wrote something." This was however, considered to be more of a phone model problem than an interface problem.

Here follows the conclusions and recommendations for the next playtest:

The different feedback and motivation for playing the game are completely different between the participants of the two playtests. Most likely it has to do with the age difference. The elements that motivated the older target group, like writing and reading each other’s stories, did not have the same positive effect on the younger kids. One problem was that the younger participants had to read the older participant’s stories, supposedly it would be more fun if they had the chance to read each other’s posts. What can be concluded about this is that it does not work that good to use the same material for young youth and people between 20 – 30 years old. The basic concept of going around in their surroundings and to document and share their thoughts and experiences were upheld by the participants in both playtest’s, so that works. What the participants in the playtest in Husby lacked was more of an adventure based setup, where missions could be carried out in the surroundings. The stories that were used in the Husby playtest, which was taken from the first playtest, the young people felt was too grown-written. It could be necessary to adapt to the specific audience. One suggestion is that there are different levels of the game which the players can choose from, so the content is tailored to the participant. They also advocated telling and documenting through pictures and video, in front of having to type the entries. An update of the software should be implemented for the next playtest, where images, sounds and movies can be used to document and create posts.
Furthermore an update of the map interfaces to show where the player is and how the player moved in the area. The distance between the posts marked on the map needs to be shortened and the content in them also has to become more relevant / interesting for that location.

6.4 Analysis

In this iteration the text based storytelling part was not that fun and engaging for the participants as in the first playtest. What motivated this group was instead moving between different places and document through video and pictures. Based on the content and the implemented interface we had for this playtest, with loose thoughts and personal stories through text, it is not enough to engage this type of target group. A more game like type of experience with adventures and characters is preferable. That said, the participants from this playtest did like to document their thoughts and surroundings, but through pictures and video, so the precondition of an engaging activity and a story gathering tool is still applicable.

The site-specific element in this iteration was quite hard to analyze. On one side the participants did not use the different places, we put on the map, as intended. They either did not go there at all or they did not read the posts that were connected to that place. On the other side the participants thought it was fun to document from the different places through pictures and video. The place gave the participants inspiration to document and be active in the game, we can therefore state that the site has a positive impact on the game. More in detail how the place should incorporate into the game needs to be tested further.

Unfortunately the technology and the interface did not get that much attention in this iteration as we had hoped for. From our observations it seemed like it was easy to use and all three groups was able to understand the concepts of the different interfaces. We can state that technology does its job like it is right now, but needs to have more functions, for example the ability for creating and looking at posts with picture, video and audio.

Overall it was a little disappointing that we did not get more information about the site-specific element and feedback about the technology. In retrospective it would be preferable to use the same participants as in the first playtest, or the same age, at least when we wanted to test the same game mechanics but with added technology and real environments.
The positive knowledge that arises from this playtest was the understanding of what different age span think is engaging to do in this kind of activity. The game maybe should have different kind of levels with different content, for different kind of players.
7 Conclusion

This chapter will give a final conclusion of the problem statement and discuss the study. The chapter ends with suggestions for future research.

7.1 Conclusion

The purpose of this research was to explore how various design methods contribute to making an engaging pervasive game that people want and like to play, while, at the same time, cater for the goals of the stakeholders. A qualitative study with action research as primary methodology was used to achieve this. More specifically, the thesis worked with the design of a storytelling game that is intended to work as a tool for gathering stories in the form of thoughts, experiences etcetera from the people who lives in the Kista and järva area. With these research goals in mind, four questions were stated:

- Will a playcentric iterative game design method be a good tool for reaching the stakeholder goals?
- Can we at the same time achieve an engaging pervasive game, and a story gathering tool?
- How does the fact that the game is site-specific influence the design process?
- How does the direct involvement of stakeholders affect the game design process?

Stakeholder influence

During the idea generating practice the stakeholders affected the process in two different ways. On one side the stakeholders where vague about the vision and goal of the project. Thus, many of the ideas generated in the brainstorming workshop had to either be thrown away or reevaluated from the ground when the goals from the stakeholders were informed. On the other side, when the stakeholder enlightened the participants too much too early about his visions and goals of the project, the game ideas became very similar with few game elements. Both outcomes turned towards the same result: The direct involvement and strong opinions from the stakeholders made it hard to keep any game elements in the design and, during the design process, directed the game more towards an activity rather than a game.
**Site-specific design**

The site-specific element was the precondition that affected us, the game and methods designers, more than the participants of the first two iterations. We as designers had a clear picture of the site and how it looked like and worked a lot to have that integrated into the design. The Problem was to share that information to the participants in iteration one and two. The participants either did not understand the importance of the site-specific element or could not integrate it into the game in a desirable way. In iteration one, we tried to integrate the site-specific element with explanations, when lack of time and recourses prevented us from body storming. The result was a shortcoming in adequate ideas. In iteration two, we tried with pictures that would represent the intended play location. The majority of the participants did not feel that pictures were enough to get a feeling and inspiration of a place. Thus, pictures do not work that well as supplement for testing a location dependent game design. On one side, the shortcoming, of constructive feedback about this game and its design, was a disappointment. On the other side, from a designer’s perspective, this gave important knowledge about designing site-specific games.

In iteration three, we found out that the place helped the participants with inspiration and interact with the game, but they did not do that as we had planned in the game design. Thus, it is not only important to incorporate the site into the playtest, but also have relevant material in the game that is connected to that place.

**Specific methods**

In our case the design methods we used for iteration one, the brainstorming sessions, were not that good for reaching the stakeholders goal. The cards that we used where too far away from the stakeholders visions and the execution and arrangement of the sessions did not get the most out of each participant. A combination with body storming at the site is preferable for this iteration.
**Play-centric approach**

To collaborate with potential players as soon as the first draft of the game design was finished helped us a lot. Both to have a set deadline for the playtest, which helped us, work harder in the beginning of the game design process. It can usually be a problem, in game design projects, to have to make most of the big decisions late in the process that either makes the job a lot harder or suffer from an unsatisfied end result. And to have tested the game design in practice, which helped us to understand which parts of the game design that was fun and which parts that did not work as intended. Not only the feedback from the participants, but also to see how they interacted with the game, talked to each other, and acted during the playtest, were of great value to us for the later stages of the game design. The biggest difference between iteration two and three, was the practical dilemma with a large playing field in the last playtest, it was harder to see how the participants played the game. The use of video cameras to document worked quite well to supplement the direct observation that we were able to utilize in the first playtest. Another difference was the age difference between the two iterations. Their view and experiences of the game where so different that it was hard to see how the game design changes, between playtest one and two, affected the game experience. The good thing was that the big difference in the two target groups gave a lot of different feedback and tips for the game design.

To answer the second question: The two playtest iterations helped us a lot during the design process. We could both test the stakeholders’ preconditions in practice and get valuable feedback in return that together contributed to an engaging pervasive activity as well as a story gathering tool.

### 7.2 Discussion

It was interesting to use action research as methodology during the study. That I designed, participated and both evaluated myself and others and compared my own experience of a workshop with other participants. And that I from time to time experienced the situation different than them. Even if this approach gives a lot of knowledge and together with interviews and questionnaires gives a good triangulation of the empirical information I cannot deny that I weight my own experience heavier than the information I get from the other
participants and that it shines through in the thesis. However a degree of biased is undeniable in any qualitative research.

The power of a playcentric approach really impressed me. Even if we as game designers have thought of everything because we work with the game for weeks or month, I cannot deny how overwhelmed of how much great thoughts and feedback you get from players, even though they just been in contact with the game for a couple of hour. Also how much you learn just by watching the participants play the game. To have this knowledge from the players early in the process is invaluable and to see and hear about how they like to do something that you have helped create gives a lot of satisfaction.

I was a little disappointed about the empirical information I collected during the study. A slight change in the research approach was made half way into the study and some interview and questionnaire questions were asked before the change that could not be redone. Furthermore we did not emphasize the technology enough and I feel a shortage of that field in the thesis along with the empirical information about the site-specific element. I am also disappointed about the third iteration. In retrospect it was a mistake to use that young of an audience in that stage of the design process. On one side, it was good to get the feedback and information of what younger participants experience during a play session. On the other side, what we wanted to test in this iteration was the site-specific element and the technology that we could not test in the first playtest. It would have been more useful to work with the same participants with the two added elements that actually are a big part of the finished design.

Another part that we could have done more efficient was the brainstorming session. Instead of focusing on the material, the different cards we used during the sessions, we should have worked with the size of the groups, the length of the sessions, the role of the facilitator and the stakeholders, be more clear about the different phases during the process, and how we documented the ideas. The brainstorming session should also be complemented with body-storming.

One important note to consider is the fact that this study can only speak for this particular case. How the outcome of a playcentric design approach in another environment will be is
hard to predict from just this study, however, it will be one contribution to this somewhat unexplored field and help to understand the process of game design.

7.3 Suggestions for future research

The research about storytelling games is somewhat unexplored. To fully understand this area, the results of this study must be compared with other similar studies in this field. To answer the questions stated in this research more accurate, it is necessary to be a part of the process until the finished design.

It would be interesting to investigate if the design process and result would have differed, if a stakeholder with the same goals and visions, but with a game designs background, where responsible for the project. Could the story gathering tool work as well with a lot of game elements in the design?
8 Literature references


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Appendices

Appendix A – the game I’m your body

I'm your body is a tool, a play or a game developed for mobile phones. The game is based on the idea of the city as a single body and serves as a platform for creative and interaction in public space. I'm your body creates a virtual and physical network of stories, comments and interventions related to physical locations. Anyone can play anywhere. Anything can be included. You get an active participation in the public domain.

You can play an infinite number of ways. You can post dance, music, text, do physical interventions, using the game as a study or foundation to identify a location. Comment on what others or you yourself have done. Complain about a broken bike racks or praise a discount. Participation can consist of both text, location, film, theater, sculpture and architecture. The game acts as a kind of open invisible institution or platform for culture that actively take part in the development of public space.
Appendix B – Questionnaire from Iteration one

The questions have answers in both English and Swedish.

What were your thoughts about the introduction and the precondition for the game?

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I'm uncertain on how to make a game out of something that is already a skill game and a non-competing environment.

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Good, didn't contribute that much since I know a lot of what the project was about beforehand.

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FIRST DAY: It gave a start point to work with. However, it was a bit confusing as the preconditions were from different fields. So it was hard to keep all of them in my mind during the brainstorm session.

SECOND DAY: The task was clearer. However, we should have discussed the activity before going to the brainstorm session. Many doubts appear during the session about the activity.

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I think the introduction was quite shaky on both days. Perhaps it is hard to convey the game idea in such a short period of time, or perhaps it was vague on purpose to leave us open for brainstorm.

No real formal preconditions were set really.

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Monday: I thought that the preconditions were still quite vague which would give us freedom but would pose a challenge too. Also, I still had some difficulties imagining what kind of
stories should be told and in which way participants could be encouraged to share such personal information.

Tuesday: That the topic was really interesting and offered a lot of opportunities for creating a game.
---------
Jag hade goda förkunskaper om bägge spelen och känner därför att jag har lite svårt att svara på frågan. Jag gör ändå ett försök:

Förra dagens situation presenterades ganska tydligt, men nuläget blev lite ihophastat. Speltanken framgick rätt bra och jag tror att det skapades en förståelse för vad vi skulle ha spelet till.

andra dagen hade en bra genomgång av freerunning, det var praktiskt tydligare än den första dagen, men själva meningen med spelet var inte riktigt lika självklar. Fokus hamnade snarare på önskningar i en webb-community.
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...
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What do you think about the methods used during this workshop, what was good and what was bad?
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I liked both set of cards.
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For our group the brainstorming worked not as good for the second day as the first. To some extent I think it was that the group had two persons with lots of technical knowledge and Markus from Air-wipp who knew very little. It would be better in that case that the tech-cards more showed one or more actions one could detect or so.

John made an interesting comment that it would be interesting to have contradicting cards or limiting cards, e.g. not allowed to walk.
FIRST DAY: The brainstorm was really good and the cards helped to develop the ideas. For the lack of time, we were not able to apply any methods in the next session. In my opinion, it was needed much more time to narrow down the number of ideas and make a deeper analysis of them.

SECOND DAY: The brainstorm was also good. The cards used in the afternoon session helped to improve the weak points of our idea. I think they were useful.

All methods, play acting, cards, etc... were quite effective. The cards were more effective on the first day since the project specification was less exact.

Time constraints were the worst. The brainstorm session was good on both days, refining the ideas in the afternoon was difficult. On the first day, our group had quite a lot of ideas and refining this to one idea was hard pressed. On the second, we lacked motivation to think "out of the box" and simply threw out ideas that didn't fit with the description of what Marcus had described as beneficial for Parkour runners.

On both days, the "stakeholders" should have been rotating from group to group to help throw out and choose concepts quicker so that refinement could be done quicker in the afternoon.

I think all four groups came up with the same concept on the second day. Namely that which catered directly to the description of what Marcus said. Stakeholder

Monday: Both card sets were pretty useful. The ones used in the morning provided us with a background around which to create our ideas. With these cards we had something concrete which was good, because everything was still so vague and yet because there were so many strange combinations the cards enabled us to develop ideas, which would not have come up otherwise. The set of lenses used in the afternoon made us consider game properties which had
not been addressed previously. Using them we were able to realize some of the issues and problems of our ideas.

Tuesday: Having a group leader I had not had on Monday, I realized that both card sets could be used in many different ways, which is always good. Unfortunately we did hardly use the deck of lenses, but instead our group leader applied the method with the colored hats in the afternoon. Some of the hats were helpful, but they were not capable to really make us look unto our design from different angles which we had not already addressed, so I did not particularly like them.

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Brainstormingkorten var bra och fungerade, men jag skulle gärna haft fler och mer omväxlande, med lite mindre fokus på viss teknik. Gärna på tekniska metoder och möjligheter, men själva tekniska lösningen ett par steg längre bort (t.ex. tagga platser är bra, digital kommunikation över korta avstånd är bra, radiokommunikation lite mer tekniskt och begränsande).

Första dagen gick vi lite för fort in i eftermiddagen. Splittringen av grupperna gjorde också att man fick lov att försvara/återberätta sina tidigare idéer, för att de inte skulle försvinna i oförståelse.


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Det var bra att ha uppstyrda förutsättningar och mål men man blir låst och när det finns ”fel” resultat eller ”rätt” resultat blir det ytligt och onyanserat.

Which of your game ideas are you most proud of and was it any ideas that you didn’t like?
The freerunner with portable data-gathering equipment as to internalize a stage/competition/judge.

I didn't like the ideas that could make the freerunners uncomfortable, they earn their living by their cool and reputation so they need to be able to control that.

Not at the moment

FIRST DAY: I like the idea of putting challenges to the players. The idea of posting stories could be also good but it should have been analyzed further.

SECOND DAY: "Let's run free" was a good idea to combine runners from different levels and to promote the sport. Many ideas have common points, which I think it is good.

On the first day, I am particularly proud of my groups work, not as an individual. We had great team work and a positive influence on each other.

The second day, I didn't think there was something particular to be proud of since the design was so tightly conformed.

Monday: I liked the "virtual cat" and the "subway" concept we came up with very much. My favorite aspect were the "emotional gates" which, depending on the emotional state they were in, made some noises whenever people were passing through them.

I would not really say that I disliked our game concept with which we came up with in the afternoon, but, to my mind, we could have

(a) come up with something better (which people might want to play more) or

(b) refined the ideas more (if we had have enough time for that at least)
Tuesday: The morning session was brilliant and we came up with tons of ideas which were creative and interesting and I liked all of them.

Again I only have issues with what we came up with in the afternoon. It is not the idea itself but rather the fact that all groups came up with something very similar that I dislike. Especially, as all four concepts share the same issues, at least to my opinion. All of them focus more on designing a community with some playful aspects rather than focusing on designing a game and the audience is not involved at all. Also, I think it is really sad, that most of the ideas from the morning were not used.

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Det fanns alla sorter, men jag har svårt att nämna någon särskild. Det bästa som jag såg det var att plocka element ifrån alla idéer och applicera dem på de grundtankar som fanns redan innan workshopen.

Detta svar gäller båda dagarna.

----------
1. Jag tycker om min första idé som jag diskuterat tidigare. Fick inspiration till andra projekt och till vissa modifieringar av grundidén.
2. Många idéer var ytliga och ”plojjiga”

Are you satisfied with your results from the brainstorming sessions? Please explain why or why not.

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Yes pretty much. It could be a more fleshed out game concept though.

----------
Yes, it was a nice design for how to establish a community and how to implement a karma system for free-runners but maybe the gaming part was a bit weak.

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FIRST DAY: Yes. Even if the task was quite hard, the cards were a powerful tool and helped a lot to think on concrete aspects to come out with good ideas. method

SECOND DAY: Yes. The task was easier and we did not need to use the cards as much, but they were still useful.
Yes, aside from the fact that each group would probably have benefited from having a visionary or "stakeholder" to guide them in the right direction.

Monday: Yes, definitely.

First of all we came up with 3 scenarios/ basic game ideas of which 2 were especially interesting to my mind. Also, we discussed general issues a game, given the preconditions, might have.

I gained quite a lot of knowledge on how to create and plan games and the whole group participated in creating ideas and approaches, so it was fun, interesting and productive.

Tuesday: I am very much satisfied with the results. All the ideas were unique and interesting and focused on completely different aspects.

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Andra dagen fick ett bättre resultat, även om det inte kändes som att det blev så mycket närmare produkt där heller.

Båda dagarna gav dock mycket bra idéer och input och detta kommer att kunna användas under resten av arbetet.

---

Ja jag är nöjd och inspirerad! Det var en glad och generös stämning i gruppen.

Did you have any problems generating ideas given the preconditions for the game?

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No.

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8
FIRST DAY: It was hard to combine the preconditions to think of a game. But after some time, you got in the task and the ideas started to come out.

SECOND DAY: It was quite easy to apply the preconditions to think of a game.

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Yes, on the first day, there were too many ideas which were not decided on early enough for refinement. In the second, the case was so limited that it was hard to be creative.

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Monday: Suprisingly no. Before we started I though it was going to be tough, but the ideas came along quite nicely.

Tuesday: No, none at all.

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Min förståelse var rätt stor, så det påverkade inte min förmåga att skapa idéer. Det kan ha varit annorlunda för de som kom mer nya och oinsatta till dagen.

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nej!

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Have you been in this kind of brainstorming sessions before? If yes, what did you do?

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Yes, designing mobile games and advertisement campaigns.

---

yes. many, do not remember exactly. For instance we used the hats when we came up with Sanningen om Marika.

---

No
Yes, but far more limited. We did however let people launch off ideas which were immediately corrected by the "visionary".

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No.

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Ja, ganska många gånger och med ganska olika roller.

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Nej!

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If yes on question nr 6: Were there any differences in exercise experience between this brainstorming session and the other ones you have participated in? And are you as happy with the result?

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I like the idea of a fixed deliverable. Answer these things, give lists of ingredients with X parts. A format to deliver the result in because otherwise it might be a little too vague.

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What do you mean by exercise experience? I do not understand this question.

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“-“

------

Yes, there were differences. I think the cards were particular helpful and it is a shame that we didn't have time to use the "hats". I think they would proved insightful.

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…

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Jag har varit med om både bättre och betydligt sämre brnstormingssessioner. denna hade en ganska tydlig konvergensfas vilket är bra, men den fungerade tyvärr inte så bra som det var tänkt. De gånger jag varit med om bättre brainstormings så har detta ofta haft att göra med att konvergensen varit väl genomtänkt och fungerat.
Jag skulle även uppskattat uppvärmningsövningar innan man startade för att underlättad divergensen.

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…

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Have you designed games before? If yes, which methods did you use?

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The fools journey & concepts of contradiction.

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Random words

Free form brainstorming

Body storming

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No

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yes, but one on one designs and solo designs.

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I have once designed a game before during a project work at my university. We were a group of 4 people taking care of the overall game design. However, we did not use any existing methods - at least not consciously. We were rather throwing together all of our ideas while thinking about the restrictions the technology imposed upon us. In a way, this is of course brainstorming, but it was not in the same way as it has been during the workshop, because already during the brainstorming, we discarded some of the ideas and in the end we only came up with one very refined concept, which was how we wanted it to be.

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Syftar du på idégenrering, eller speldesign?
Ja, jag är designat spel förr. Oftast har jag använt olika brainstormingmetoder för att idégenerera.

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Nej!

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What’s your background?

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graphic designer, programmer, archaeologist, roleplayer.

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Interaction designer with a background in electrical engineering

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Computer engineering

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Master of science in Interactive systems engineering

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technical + game design.

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My background is mostly defined by computer vision, as well as image processing. I am rather a programmer than a designer. Although the designing stage wasn’t left out completely, my education focused much more on "hardcore IT".

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konstnär

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Appendix B – Interview questions for iteration one

Interview questions

• What were your thoughts about the introduction and the precondition for the game?
• What do you think about this method as an Idea generating tool for this type of game (site specific, Story related and technology pre-requisite)?
• Which of your game ideas are you most proud of and was it any ideas that you didn’t like?
• Are you satisfied with your result from this brainstorming session?
• Was there any problems with using this method with these precondition (site specific, Story related and technology pre-requisite) for the game?
• Do you think another method, than this combination of idea cards, would suit better for generating ideas for a game like this? Or even another method type than brainstorming?
• What other type of games have you generated ideas for? And what were the differences between those games? which method did you use that time?
• Were there any differences in exercise experience between this game and the other type of games? And are you as happy with the result?
• Do you think the group was well composed or did you found any relevant knowledge that was missed?
• How do you think the player perspective is represented in this kind of workshop?
• What’s your relevant background for this session and what knowledge do you think you contributed with?
• Do you have any suggestion for improvements for this method in this type of games?

Appendix C – Questionnaire from iteration two

The questionnaire has questions and answers in Swedish, the

Frågeformulär från workshopen på prolog

Vad var roligt?

---------------------------
Att kunna spinna vidare på korta, sammankopplade idéer.
Att få en ny vinkel på hur historier/berättelser kan skapas.
Att samla de korta inläggen till en hel berättelse.
Att skriva och följa story. Att gå tillbaka och se vad som hänt med mina stories. Det kändes bra att höra kommentarer kring ”mina” lappar.

Att läsa andra svar på mina lappar.

Att bygga på sprede setningar. Kunne danne konteks, en kreativ process med oväntat resultat. Vid eftertanke var uppsumeringen i 2 rundan mest produktiv, jättekul.

Följa trådar och läsa.

Spåna fritt och inspireras av andras idéer.

Att se oväntade historier växa fram och att det fanns/skapades många möjligheter.

**Vad var tråkigt?**

Lappar, trådar och kartinger har sina poängar, men känns även plottrigt och pilligt (om än inte direkt ”tråkigt”)

Det blev stundvis lite överväldigande med alla lappar.

Tvingas vara kreativ när det inte riktigt funkade.

Det tog lite tid. Om man kunde få det intensivt, en timme full gass, vore det vara bättre.

Lite sent, lite dålig luft, lite trött.

För lite interaktion med de andra deltagarna. Man jobbade själv, i tystnad.
Det var svårt att komma långt med någon historia för att det fanns många olika att välja på.

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**Om du skulle få ändra en sak, vad skulle det vara?**

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Se nummer 2… vet dock ej till vad…

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Ett bättre system för att märka upp lapparna, svårt att komma ihåg.

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Längden på projektet.

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…

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Kanske jobba mer i grupp?

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**Om du skulle få lägga till ett moment och ta bort ett moment, vilket skulle det vara?**

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- Omgivningarna. Annan ljussättning, ljud, stämning ville gitt mycke inspiration.
- Om man hade som krav att ta utgångspunkt i stämningen i bilderna hade bilderna fått starkare funktion.
Skriva-ihop-momentet i slutet var inte min favorit…

Vet ej.

Någon slags kontakt mellan deltagarna under skrivandets gång. T.ex. att man kan mötas och prata med varandra förutom att bara kommunicera med lappar.

Vad var mest engagerande?

Plottrådarna som skapades.

Att inspireras av andras lappar och följa den gemensamma storyn.

Interaktionen med andra författare.

Sluttet, att kolla trådarna.

Första momentet

Att skapa berättelser helt fritt

Att se svaren på ens lappar och reagera på dem.

Hur skulle du kunna bli mer engagerad?

Plats förankringarna (Kartongerna med bilder) skulle kanske kunna göras mer av pointers, precis som de två ursprungsberättelselapparna.
bättre tydlighet med lapparna, lättare att följa.

Bra verktyg
- Hör finns en annan författare.
- Någon har svarat på din lapp.

En bättre intro, situationism, få oss inspirerat.

…

Mer input, man använde strax samma inspiration igen.

Jag tror att det blir bättre när spelet kommer ut i verkligheten, en riktig miljö.

Det var för mycket…

Individualism i början, och teamwork i slutet.

Timmar slagna innan vi började
Det var för lite...

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AV ALLT! SKITKUL IDÊ.
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Personer i berättelsen, men då hade nog karaktärer blivit mer styrt då.
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Konkreta historier
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Inspiration i introduktionen
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...
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Appendix D – Questionnaire from iteration three

The questionnaire has questions and answers in Swedish.

Vad var roligt?

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Det som var roligt, var att vi alla vandrade och gick till olika ställen. Det var roligt.
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Var roligt att filma
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Allt var roligt!
Allt var roligt. Jag vill göra det här igen.

Allt, men för det mesta det var videokameran.

Allt

Vad var tråkigt?

Inget var tråkigt! Men jag blev förbannad på mobilen när man skrev något.

Det var tråkigt att läsa om historier med mera

Inget var tråkigt

inget var tråkigt. Allt var roligt

Att det var mycket tråkigt för att det var så himla mycket text

Att det var kallt

Det borde vara mer av…

Äventyr, saker som man blev förväntad av när man såg det.
Det borde vara mer roliga saker som äventyr. Inte mycket men lite mer. Man borde lägga till karaktärer också.

Intervjua folk och vi borde ha lite mer tid på.

Bilder och äventyr

Personer från andra skolor

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Det borde vara mindre av...

Krig! Eftersom krig lönar sig ingenting och det är bara våld.

Skrivning

Jag är nöjd med allt.

Inget utan det borde va lite mer tid.

Texter

Vandring

Om du skulle få ändra en sak, vad skulle det vara?
Mer äventyr och väldigt lite våld och krig.

Att skriva det borde vara mindre

Lite mer av spanning

Jag önskar att vi fick lite mer tid för att göra det här jobbet

Det skulle vara mindre texter och mer bilder och sånt

Att man skulle kunna gå längre