

Game Concept Design and Positive Psychology

A game to help increase relaxation.

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<p>Abstract:</p> <p>Games are something most of us play quite regularly and something people have played since ancient times. Games evolve constantly, especially with advancements in technology. Creating a game is a long process and consists of different stages. This thesis explores the first stage of making a game, specifically a relaxing game. The stage in question consist of constructing a game concept to help the user relax. This was done by thought experiments, game research and theoretical research on positive psychology, flow and games. The theoretical research answered the questions on how to incorporate positive psychology into the game and what qualifications has to be met to be classified as a game. What a relaxing game looks like and what the game's concept design looks like was answered with the help of thought experiments, game research and analysis. My partner for this thesis project, Tony Wainio, is handling the construction of the game concept. The study ended with a game concept design ready for the next stage in the building process of the game.</p>	
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<p>Sammandrag:</p> <p>Spel är något som de flesta av oss spelar ganska regelbundet och något som människor har spelat sedan urminnes tider. Spel utvecklas ständigt, särskilt med framsteg inom teknik. Att skapa ett spel är en lång process och består av olika faser. Detta examensarbete utforskar den första fasen av att skapa ett spel, specifikt ett avslappnande spel. Skedet i fråga består av att konstruera ett spelkoncept för att hjälpa användaren att slappna av. Detta gjordes genom tankeexperiment, spelforskning och teoretisk forskning om positiv psykologi, flow och spel. Den teoretiska forskningen besvarade frågorna om hur man inför positiv psykologi i spel och vilka kvalifikationer som måste uppfyllas för att klassas som ett spel. Hur ett spel som hjälper användaren koppla av ser ut och hur spelets konceptdesign ser ut, besvarades med hjälp av tankeexperiment, spel forskning och analys. Min partner för detta examensprojekt, Tony Wainio, hanterar byggandet av spelkonceptet. Studien avslutades med ett spelkoncept redo för nästa steg i byggprocessen av spelet.</p>	
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INNEHÅLL / CONTENTS

1	Introduction.....	7
1.1	Motivation for choice of research topic.....	7
1.2	Aim of the study.....	8
1.3	Research questions.....	8
1.4	Limitations	8
1.5	Theoretical framework.....	9
1.6	Definitions.....	9
1.7	Background information	10
1.7.1	<i>Positive psychology</i>	10
1.7.2	<i>Flow</i>	11
1.7.3	<i>Games</i>	11
1.7.4	<i>Thought experiments</i>	12
2	Methods.....	14
2.1	Description of the material.....	14
3	Research results.....	16
3.1	Game design	16
3.1.1	<i>Four defining features in games</i>	16
3.1.2	<i>Hard work in games</i>	17
3.1.3	<i>Game and user statistics</i>	18
3.1.4	<i>Casual games</i>	18
3.2	Positive psychology and flow	19
3.2.1	<i>Positive emotions</i>	19
3.2.2	<i>Strengths and virtues</i>	19
3.2.3	<i>Pleasures and gratifications</i>	20
3.2.4	<i>Flow</i>	22
3.2.5	<i>Good and bad thoughts</i>	23
3.3	The evolution of the game through thought experiments.....	23
3.3.1	<i>Game concepts</i>	23
3.3.2	<i>Research of existing games</i>	26
3.3.3	<i>Final game concept</i>	32
4	Discussion and conclusion	34
4.1	Implementing game design into final game concept.....	34
4.2	Implementing positive psychology.....	35
4.3	Game concept design	36
4.3.1	<i>Description and instructions</i>	36

4.3.2	Screen descriptions – step by step	37
4.4	Conclusions	41
	Reference	42
	Appendix 1. Summary of the main arguments in Swedish	44

Figures

Figure 1. Mihaly Csikszentmihalyi’s explanation on “Why the complexity of consciousness increases as a result of flow experiences” (2008 p.74).....	22
Figure 2. Screenshot of Air gameplay.	26
Figure 3. Screenshot of eDrops gameplay.....	27
Figure 4 & 5. Screenshot of Nulis gameplay.	28
Figure 6. Screenshot of Melodive gameplay.	29
Figure 7 & 8. Screenshot of Strange Rain gameplay.	30
Figure 9. Screenshot of B Machine gameplay.....	31
Figure 10, 11 & 12. Screenshot of Essence gameplay.	31
Figure 13, 14, 15 & 16. Sketches of screen 1-4 in game.....	39
Figure 17. Flowchart of gameplay.....	40

1 INTRODUCTION

Games and stress are factors that we experience in our daily life more often than before. Why not combine the two and make a game to help tackle the stress? That is what this thesis project will explore. From the first idea to a complete concept. This game concept will be built by the other part of this thesis project, Tony Wainio.

1.1 Motivation for choice of research topic

The topic of this thesis is to create a concept for a game that helps the user achieve a state of relaxation and reflection. This will be accomplished by implementing positive psychology into the game. The thesis idea was inspired by “brain exercise” games, such as Lumosity, with short daily tasks that are meant to be played on a portable device. The idea is to build a game which helps you “exercise” your conscious and subconscious to react and deal with stress in a different way.

It is a common fact that people nowadays are stressed (Institute of Heartmath 2012). Stress is not necessarily bad, but those who are bad at dealing with it or experience a lot of it feel unhappy. There are those who believe that a large part of stress has to do with our constant connectivity to everybody and everything, and then there are those who argue that it has less to do with the different devices or networks and more to do with e.g. work or studies. It is this kind of stress that the game will tackle.

What sort of game relaxes a person the most is different from person to person. Some experience relaxation after playing puzzle games and some after battling some zombies in shooter games. There are computer games which claim to be relaxing games and designed to be soothing for the players, e.g. Kyoto. Mobile devices have applications with similar goals e.g. meditation, hypnosis and stress relief through aggression, but most are not games.

Smartphone and tablet-users are more and more common, with other words: people are buying more portable devices. This in turn means that there is a large and still growing market for these devices. People spend most of their time on the phone on gaming apps

(Bosomworth 2014). Why not use a device most people have and use to help them feel more relaxed.

1.2 Aim of the study

The aim of this thesis is, as mentioned above, to increase the relaxation, happiness and/or flow of the users of our game. This will be done by implementing positive psychology into the game idea. This thesis will focus more on how and which part to implement through the chosen literature, thought experiments and the theoretical possibilities of becoming a product than user testing an application.

The second goal of this thesis is to have a game concept to give to Tony Wainio, who will be making the first version of the game as his thesis. Our thesis project could even be a version of relatively new genre of games, specifically targeting stress.

1.3 Research questions

The main questions which this thesis will concentrate on are:

- How does the player achieve happiness, relaxation or flow through the game world?
- How to implement positive psychology into our application to reach those goals?
- How to make the concept into a game with all the requirements of one?

Another questions is based on the preliminary target group for this application. Will the preliminary target group be the most fitting for the game?

1.4 Limitations

User testing is the first of the limitations in this thesis project. As mentioned before the aim of the study is the finished concept, not product testing.

Social interaction, face to face or through games, is a great way to feel happier or experience flow. (McGonigal 2012 p. 82) Games with some form of social aspect are often very popular. Even with this information, the game will not be a social game. People may feel relaxed in the company of other people but that does not mean that they have dealt with the stressful situation and part of the aim is to make our game reflective. This reflection come from a “meditative” state of the player while being surrounded by his or her own thoughts.

The preliminary target group is working young adults, age 20-35 who have busy schedules and feel stressed. They use their smartphones or tablets daily and maybe even for disconnecting from a stressful situation with a game. This limitation is there because it is difficult to make an application which caters to everyone. These are the people most likely to use our application.

1.5 Theoretical framework

The main theoretical frameworks in this thesis comes from three books. Authentic happiness by Martin E. P. Seligman, Flow - The Psychology of Optimal Experience by Mihaly Csikszentmihalyi and Reality is broken by Jane McGonigal.

Other books and articles will also be used, but not as extensively as the three mentioned above. These books will be used to answer the research questions.

1.6 Definitions

Positive psychology is about increasing happiness, understanding it and make it last longer. A great quote in Seligman’s book (2003 p. xii) that embodies this process is:

“to go from plus two to plus seven in your life, not just how to go from minus five to minus three and feel a little less miserable day by day.”

Flow is a term describing a state of being. Mihaly Csikszentmihalyi, the author of Flow - The Psychology of Optimal Experience (2008 p.4), describes it as:

“the state in which people are so involved in an activity that nothing else seems to matter; the experience itself is so enjoyable that people will do it even at great cost, for the sheer sake of doing it.”

Game world is the design and rules players experience when they play the game.

Mobile devices is referring to smartphones and tablets.

Application, or app as it's also known, in this thesis is used to describe a program or software written to fulfill a specific purpose.

Games in this thesis refers mostly to virtual games, such as computer, console or mobile games. Sometimes it can be to name all games, e.g. chess, hide and seek. Gamer is a term for the games players, as is player.

Digital distribution platforms are places where you can buy mobile apps on your smartphone. E.g. the Android phones have “Google play” and the iOS phones have “App store”

Tap or tapping is when a person “clicks” on a touchscreen device.

“Our game” refers to the game prototype Tony Wainio will build of the concept I give him.

1.7 Background information

1.7.1 Positive psychology

Positive psychology is a relatively new movement in psychology. Psychology has focused on mental illnesses for the most part of half a century. We now know about many different mental illnesses and can categorize them and people according to their type and severity. But in this process there is more focus put on making them less miserable or “normal” and not necessarily happy. Positive psychology focuses on increasing people's happiness in different ways, even if one is not unhappy. There are three main fields

of study in positive psychology. They are the studies of positive emotion, positive traits and positive institutions. (Seligman 2003 p. xi-xiii)

1.7.2 Flow

Flow first appeared as a term used by Mihaly Csikszentmihalyi, to describe a state of being. It describes a state of being totally immersed in what you are doing that you stop thinking about it, you just do it. (Csikszentmihalyi 2008 p. 4) It is part of the positive psychology mentioned above and is important because:

“Flow is important both because it makes the present instant more enjoyable, and because it builds the self-confidence that allows us to develop skills and make significant contributions to humankind.” (Csikszentmihalyi 2008 p.42)

Mihaly Csikszentmihalyi has conducted studies on flow and happiness. He used the Experience Sampling Method (ESM) to collect most of his data. The method consists of the test subjects writing down how they feel and what they are thinking when the pager, that they are given, goes off. This happened randomly about eight times a day for a week. They have also done this while giving the test subjects a response booklet. People who experience flow more frequently rate themselves happier than those who rarely experience it and that people feel better if they are challenged. (2008 p.4, 99, 30, 159)

1.7.3 Games

In our society there is still belief that games, especially computer or console games, are a waste of time and not necessary for your happiness. That children need to spend less time in front of the computer and more time outside. Games with violence in particular, are perceived by some to be a reason for violence in teens and young adults. But there are who can prove that games, even computer games, are good for you. Games, as game designer Jane McGonigal puts it (2012 p. 4), are “fulfilling genuine human needs” and satisfying its players with different aspects not found in the real world.

Games, especially virtual games, are seen as a pastime mostly enjoyed by young adults and not thought of as something that could change the world. Humans have for a long time played games to make reality better or themselves feel happier. If you look at the history of games you will see that the first recorded game was played by the Lydians.

The book “The Histories” written by Herodotus, describes how the Lydians played a game in order to help them handle a famine. (McGonigal 2012 p.5-6)

McGonigal writes in her book (2012 p.28-29) how game makes the people happier by providing the player with hard work. Because it is the players’ choice to partake in a game and because of the act of playing, it doesn't feel like hard work but more like a challenge. McGonigal defines the emotions game players experience as “an optimistic sense of our own capabilities and an invigorating rush of activity”. Games stimulates parts of the brain that are linked with happiness, such as memories or motivation.

According to McGonigal, games can not only make people happier but can also change the world for the better. As an example she mentions a game from 2009 launched by the British newspaper the Guardian that emerged because of the use of taxpayers’ money on personal items by some of the parliament members. The game was to find liberal uses of said money and flag it as suspicious. By crowdsourcing and making it a game, the time it took to go through the entire “data dump” dwindled into nothing. (2012 p.219-222) There is a similar crowdsourcing game happening now in 2014, where you can look at satellite pictures and help with finding the missing Malaysian plane. (Dahlstöm 2014)

Mobile games are a fast growing part of the gaming industry. It started with the iconic game Snake in the 90s and has become more diverse and popular. With the development of better and better phones, and the users of mobile phones increasing, games on mobile phones were in demand. When smartphones came to the market, and with them the digital distribution platforms, so did the endless possibilities for game developers. PricewaterhouseCoopers estimates that in 2017 the size of game market for mobile phones will be 14, 74 billion. (ESA’s The Evolution of Mobile Games 2012)

1.7.4 Thought experiments

In an article written by Brown and Fehige they define thought experiments as such:

“Thought experiments are devices of the imagination used to investigate the nature of things. They are used for diverse reasons in a variety of areas, including economics, history, mathematics, philosophy, and the sciences, especially physics.”(Brown & Fehige 2011)

They also mention that the term is and should remain loosely characterized because if its definition is too defined it may influence the process of the experiment.

There is not just one way to use thought experiments. They can for instance be used to clarify, as examples or to oppose or support a theory. The most famous examples on thought experiments are Schrödinger's cat, Einstein's elevator and Maxwell's demon. (Brown & Fehige 2011)

2 METHODS

The methodology in this thesis is to use both books and thought experiments. I.e. using thought experiments and game research to get a game idea, and to find information about building game and creating flow from the books. Then shape the idea for the application into a finished version of the game concept with the aim of the thesis in mind. The research questions mentioned in the introduction where the starting point into finding the right kind of books to use.

2.1 Description of the material

As stated before, the method is to use the books as the theoretical framework to help create the game. The books mentioned in the theoretical framework section in the introduction are:

- Authentic happiness by Martin E. P. Seligman
- Flow - The Psychology of Optimal Experience by Mihaly Csikszentmihalyi
- Reality is broken by Jane McGonigal

These books were chosen because they have the answers to my research questions and in turn the aim of the thesis and will assist with the building of the game concept.

Seligman and Csikszentmihalyi's books will help with implementing positive psychology into the application. Authentic happiness is a self-proclaimed "self-improvement" book and therefore has many tips on how to make your own life more fulfilling and to make it last. (Seligman 2003 p. 121) Csikszentmihalyi's book is about flow and how to experience it.

Jane McGonigal's book about games and new games design, games designed to make reality or the world better. Her aim is to create a future where games "tackle real dilemmas and improve real lives" (2012 p.13-14). She is already familiar with the concept of flow in games, which makes her book ideal choice for this thesis project. With the information gathered from the book the game idea will become a game concept with all the requirements of one.

The statistics from ESA's Essential facts about the computer and video Game Industry: 2013 Sales, Demographic and Usage Data will help with defining the target group. Additionally they will give a better insight into the mobile gaming industry.

There will also be other articles, such as Thought experiments by Brown & Fehige, and books used in the thesis. Game research will come together by exploring different games and using the information in the thought experiments to determine the game's concept design.

3 RESEARCH RESULTS

The research is based on the game idea. I.e. what is needed to make the game idea into a finished concept. Not only how to implement positive psychology but to game components.

3.1 Game design

To be classified as a game and hopefully a game that make reality better, there are different types of traits that have to be reached. These traits are taken from Jane McGonigal's book Reality is Broken and will be used to make the idea for the application into an actual game concept.

3.1.1 Four defining features in games

Every game, be it basketball or world of Warcraft have four defining features according to McGonigal. (2012 p. 21-23) They are: the goal, the rules, the feedback system and voluntary participation.

The goal is usually at the end of the game. When the player reaches it, the game is over. In basketball it's to score the most point until the time runs out and in Super Mario it's when you completed all levels, bosses and free the princess. But there are games that don't have traditional goals at the end of the game. McGonigal mentions Tetris as this type of game. The goal of Tetris is to stay alive for as long as possible by moving the falling pieces into the right places until you lose. The goal feature gives the player focus and gives them "a sense of purpose".

Rules are what makes games different or similar to each other. They are also what makes a game a game. The rules restrict the player from the simple way of doing it and challenges them to figure out new ways of reaching the goal. Football, for example, makes the player kick the ball across the field into the opponent's goal. The easiest way to achieve this in real life is to use your hands, but the rules of football doesn't allow

this. The rules according to McGonigal will “unleash creativity and foster strategic thinking”.

The feedback system is what McGonigal calls the way players see their achievements. It can be any type of feature which helps the player see how far they have come and maybe even how far they have left. Tetris for instance have a point score and Super Mario has the levels and a map. This feedback gives the players a “promise” of an achievable goals and “motivation” to reach said goals.

Voluntary participation is what makes all the “unnecessary” work and challenges in games fun. By starting a game the players know and accept the defining features, such as the rules, and in that way willingly participates and can “establishes common ground” with other players. McGonigal also mentions that the players feel playing the game is a “safe and pleasurable activity” because the ability to leave the game when they want, this also goes for entering a game. 3D games environments are according to McGonigal is a great way to get the player to focus more on the game.

3.1.2 Hard work in games

There are six different types of hard work games fall into, as stated by Jane McGonigal in her book. (2012 p.29-31) As mentioned before, it is the hard work in a game that makes it a satisfying experience for the player. The different categories of hard work are: high-stakes work, busy work, mental work, physical work, discovery work and creative work.

High-stakes work are games which have high stakes for success or failure and are filled with action. An example is a first person shooter game.

Busy work is found in games with routine work that will keep you busy but will not surprise the player. Many Facebook games fit into this category, e.g. Candy Crush or Farmville are classified as this type of game

Mental work is quite self-explanatory. Games which makes the player use his or her brain to solve different kinds of puzzles, e.g. Lumosity.

Physical work is what the gaming console Wii is famous for. To make the player move their body while playing and having fun.

Discovery work will make the curious player investigate the game world. That way the player will understand it better.

Creative work is simply put when the player creates new things. For instance in the game Sims, the player can make people, build houses and cities.

3.1.3 Game and user statistics

These are facts taken from ESA's Essential facts about the computer and video Game Industry: 2013 Sales, Demographic and Usage Data.

- The average gamer last year in the United States was 30 years old.
- Gamers have on average been playing for about thirteen years.
- 32% of all gamers are 18 - 35 years old.
- Of all gamers 45% are female.
- 36% play on their smartphones.
- 25% play on wireless devices.

These gamers are likely to keep playing games for the remainder of their lives. The average age for a gamer in 2010 was 34 years old. The younger generation, under 18 years, have increased from 25% to 32% in these 3 years and the difference between male and female gamers have become smaller. (McGonigal 2012 p. 11)(ESA's essential facts about the computer and video game industry 2010)

3.1.4 Casual games

Casual games are described by McGonigal (2012 p. 61-62) as games don't take much time or space and are easy to learn. Mobile games are often classified as this because

they usually made to be played in small sessions and not to take up too much space on a phone.

70% of high level workers regularly play casual games during their work and most do it to feel less stressed or more productive. By focusing on the game they see that they can achieve goals and motivating themselves. They claim, according to McGonigal, that playing games make them feel “more confident, more energetic and more mentally focused”.

3.2 Positive psychology and flow

3.2.1 Positive emotions

Barbara Fredrickson (Seligman 2003 p.35-36) is an award winning positive psychologist for her theory about positive emotions. The theory claims that people who experience positive emotions are more creative and learn things better. They are also more open to experiences.

This in turn make it easier for a person to solve problems. In the examples in Seligman’s book of these types of experiments, the person or group that does something that makes them happier, e.g. eating candy, does the task of the experiments better.

3.2.2 Strengths and virtues

There are six core virtues in positive psychology. (Seligman 2003 p.11, 133) They are taken from different cultures, religious and philosophical texts and are the ideal characteristics to have as a person. The virtues can be obtained in different ways with ones strengths, according to Seligman. These virtues consists of:

- wisdom and knowledge
- love and humanity
- temperance
- courage

- justice
- spirituality and transcendence

There are twenty-four character strengths that derive from the six core virtues mentioned above. The strengths are different ways to achieve the virtues. Everyone has their own set of around four “signature strengths”. They are called “signature strengths” because they are the strengths that will come the most naturally. Seligman uses a questionnaire with statements and rated answers in his book to help the reader to figure out their signature strengths. (2003 p. 134, 141, 160)

It is good to know your strengths because according to a study by George Vaillant that started in 1930 and is still going. It shows that the men he tested who use their strengths were healthier and could do more and felt happier at an old age than the ones that didn't. (Seligman 2003 p.10)

3.2.3 Pleasures and gratifications

There are two different types of happiness in the present: pleasures and gratifications. The difference between these are the lasting effect of happiness they give and how you feel them. (Seligman 2003 p.102-104)

Pleasures, described by Seligman, are also called “raw feels” by philosophers because of the “clear sensory and strong emotional components” (2003 p.102). They are shorter forms of happiness, i.e. the happiness you experience is not long lasting and is often achieved without thinking. Pleasures can be categorized into two subcategories, “the bodily pleasures” and “the higher pleasures”.

When talking about “the bodily pleasures”, Seligman mentions everything from touch to taste. One thing the examples have in common is that they rely the senses, are instantaneous and brief. Bodily pleasures are easy to experience but the more you repeat an experience the harder it will be to recreate the same happiness as the first time, e.g. eating your favorite meal. If a person eats their favorite meal every day, they will become ac-

customed to it and enjoy it less than the first time they ate it. But if the person eats their favorite meal occasionally they will get more enjoyment out of it.

“The higher pleasures” as Seligman describes, have similar features as the bodily pleasures but are more cognitive. There are different types and more of higher pleasures and the trigger for them is also more complicated. Seligman sorts them by level of intensity: low, moderate and high. For instance relaxation and amusement are low-intensity pleasures while excitement and euphoria are high-intensity pleasures.

To be able to improve your pleasures and get the most out of them there are three factors that must be understood, according to Seligman (2003 p.104-111). The three factors are habituation, savoring and mindfulness. By not making pleasures routine and putting some time between each experience, you will get the most out of them. Seligman mentions another trick for dealing with habituation, to give different and unexpected pleasures to each other, e.g. flowers. Habituation can lead to addiction if one is not careful. There are four kinds of savoring: basking, giving thanks, marveling and luxuriating. Seligman introduces some techniques to help you stimulate these savoring: sharing with others, memory-building, self-congratulation, sharpening perceptions, absorption. Mindfulness on the other hand is about taking your time to see and understand the world around you. This in turn can make what we experienced a second time a different experience to the first and make it better. Meditation, for example, is a common way to help people slow down.

Gratifications is entwined with flow. While pleasure is about instant enjoyment and consumption of positive emotions, gratification is about lasting happiness and engagement. The “psychological components of gratification” from Seligman’s book (2003 p. 111-121) are:

- the task is challenging and requires skill
- we concentrate
- there are clear goals
- we get immediate feedback
- we have deep, effortless involvement

- there is a sense of control
- our sense of self vanishes
- time stops

Seligman’s advice (2003 p.176) on experiencing gratification or flow more often in your daily life, focusing on work, is to find your signature strengths. Incorporate these strengths into your work or find somewhere else where you use them. This will bring challenges which will match your skills and interests.

3.2.4 Flow

Flow is important, as mentioned in the introduction, and one can experience flow in different ways but a factor that it has in common is that there has to be a balance of challenge and skill. If the challenge is too high for your skill then you experience anxiety and if your skills are higher than the challenge you experience boredom. (Csikszentmihalyi 2008 p.74)

“Enjoyment appears at the boundary between boredom and anxiety, when the challenges are just balanced with the person’s capacity to act.” (Csikszentmihalyi 2008 p.52)

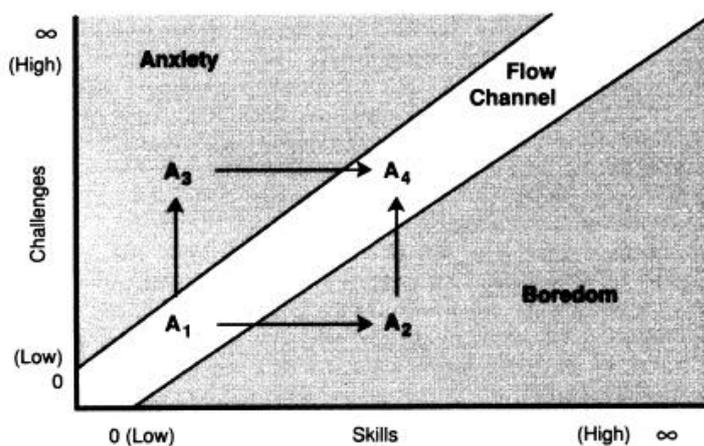


Figure 1. Mihaly Csikszentmihalyi’s explanation on “Why the complexity of consciousness increases as a result of flow experiences” (2008 p.74).

Games, hobbies, art and sports are some of the things that we humans do which consistently produce flow. In games, it can be anything from chess to computer games, single player games to mass multiplayer games. (Csikszentmihalyi 2008 p.6)

Csikszentmihalyi (2008, p.199-200) also mentions that there are ways to make stressful situations turn into situations where one experience flow. Those who deal with their stress in a positive manner, and experience flow, make the stressful situations into an enjoyable challenge.

3.2.5 Good and bad thoughts

G. Garamoni and R. Schwartz are two psychologists who have conducted a study about how the ratio of good and bad thoughts differ in non-depressed and depressed people. They found that people who are not depressed think about double the amount of good thoughts. Depressed people in contrast have an equal amount of good and bad thoughts. (Seligman 2003 p.226)

Seligman (2003 p.226-227) uses this in an exercise he does with his children called “best moments”. The exercise is to name and discuss all the good and bad things that happened that day and then to count them. As Seligman says, “It is impossible to sustain a negative mood in the presence of a large number of positive memories, expectations and beliefs”.

3.3 The evolution of the game through thought experiments

The thought experiments in this thesis were the ones conducted on the game for its evolution. In other word I use these experiments to decide how the game should be. Tony Wainio helped the process move forward with his input on the game’s mechanics and feedback on ideas.

3.3.1 Game concepts

The game idea started with a game to help the player to relax, and consequently feel happier. The idea was inspired by the brain exercise games you can find on different gaming platforms. Why not build a game that helps the player exercise how they deal with stress. With the exploration of what type of game this would be one of the suggestions was a sim world which the player can explore and interact with. This was denied because of several factors. The first being what to choose as relaxing elements, because

what people find relaxing is often very subjective. Some people might find a waterfall or nature peaceful while others can find them unpleasant. There is no way of guaranteeing that the game world will please everyone, but there are ways to increase your audience by not being too specific. Secondly there are similar games already out there, although not specifically targeting relaxation. While games such as Second World and the Sims are not meant to make you relaxed they do allow the player to explore within the gameplay. The third factor was that the player has to be by the computer, and while this is not a major inconvenience, it limits when and where the game can be played and effects how long people will play it. These factors also influence the replay value of the game. The game would have been built in the open source 3D application server Open-Sim. Then the simulator is first started, the game world consists of an island, and while this can be changed, it raised a couple of questions on how big the game world should be. In the end what was kept was a 3D game world and exploration as the main task.

As a reflection of the first game world idea, an abstract world, as well as making the game accessible for mobile devices such as smartphones would invite a larger audience. An abstract world is not as likely to contain negative connotations, because if the player has not seen it before they don't know what to expect. To make the game for a mobile device would help some of the issues in the first game version. The game could be played wherever and whenever, and in short periods to help with stress throughout the day. The shortened play sessions would also suit busy people and people with limited attention spans.

The second game concept idea was an "alien" planet. While not necessary completely abstract, it can look foreign, like nothing you have seen before. The player was meant to explore the alien planet and interact with the surrounding environment. As with the first idea, the size of the game world was still an unsolved problem. The issue with the game idea with the design aspect in mind was what the game world look like with questions such as these would come to light:

- How big should the planet be and how far can the player walk?
- Should the game world loop after a specific distance?
- How far can the player see, to a horizon or is the environment in between?

Both unlimited and limited space can be very uncomfortable for the player. This led to a brainstorming session with Tony Wainio on how to limit the game world to a smaller area without making the player feel trapped. The first idea had an island, and while some may find that relaxing other can feel trapped. Then there was a discussion about it being on land and how to not make it feel unlimited. A never ending open space can be as uncomfortable for the player as the island. To have things obstructing the view of the horizon like a sort of mist could work, but mist is often used in entertainment to confuse, disorient and scare. The environment could make the game seem less endless and finding a way to do this without making the game too big was also an issue.

The issues with the technical aspect of the game was the change of a computer game to a game for mobile devices. One has to be able to play the game on a smartphone, both the size of the screen and the game itself must be smaller. That in turn means that the controls for the game, both for movement and interaction, has to be limited because of not enough space. Should there be buttons on the screen or should only the movement of the device dictate where the player goes. Some features can be built into the game-play and not be controllable, like constant forward movement.

The maker of the game prototype, Tony Wainio, had some problems getting it to work properly. The game idea was simply too big, so it was scrapped for a more abstract world. The ideas that were saved were to use the phones or tablets position in the player's hands, tilt left or right, to move around in the game, constant motion forward and that the objects do something when you interact with them.

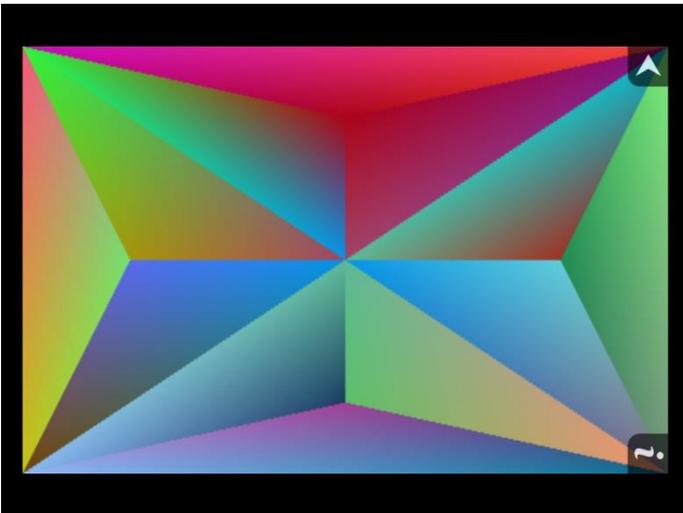
The next game world idea was to use music. That the player can interact with different abstract objects to produce sound. But with this idea we actually found a game called Air with the same idea. Finding other mobile games with some sort of relaxing and abstract game world for research was the next step forward. The research into what types of games already existed was great not only to know what not to do but for inspiration.

3.3.2 Research of existing games

During the research months these were the most notable games we found. All of them relating to relaxation in different ways.

Air

Air is a 2D game where the player can tap on an abstract background to change the sound and colors. The triangular shapes will gradually change colors when taped on. After playing around with the application, one thing became apparent. That using music in a game requires the player to either sit in a quiet room or to use headphones to get the most out of the game, this limits the playability of the game significantly. As already stated the game is meant to be able to play during someone's day, on the go. Having to



use headphones will only become a hassle, so it was decided that the game would be focusing more on the graphics than the sound. The simple graphics in Air works well because the focus on the sound.

Figure 2. Screenshot of Air gameplay.

Key points:

- Abstract 2D game.
- Simple graphics, focus on sound.
- Because of sound, headphones or quiet room are necessary.
- Sound limits when and where it can be played.

eDrops Classic

EDrops Classic is also game about music and composing. This is achieved by the continuous dropping pulses which the player could drag different objects under and around. The pulses bounces of one object into the next, creating unique sounds with every collision. This was an interesting game because it was not too complicated and had a different way of interacting with objects to create a reaction. Relaxation was experienced by moving the objects around to compose a melody or calming sound. The game was not too easy because it took some trial and error to create a harmonious sound from the chaos. The many different beats also heightens the replay value of the game.



Figure 3. Screenshot of *eDrops* gameplay.

Key points:

- Using the continuous pulse to interact with the objects.
- Not too easy for the user.
- Replay value.

Nulis

By making the transparent or black objects collide, they will attach, move apart or disappear. The game start without any instructions or clear goal, the player must figure out what they are supposed to do by exploring. The unknown factor was an interesting way of exploring a world and something that was added to our game. Instead of giving the player rules or instructions to follow or a known goal, they just have to start exploring.

This adds a level a difficulty in the game, because the player does not directly know what to do. This works well if the gameplay itself isn't too hard, or the player will give up. Because of there being no clear goal, this game lets the user choose if they want to make the objects disappear as quickly as possible or to keep multiply them.

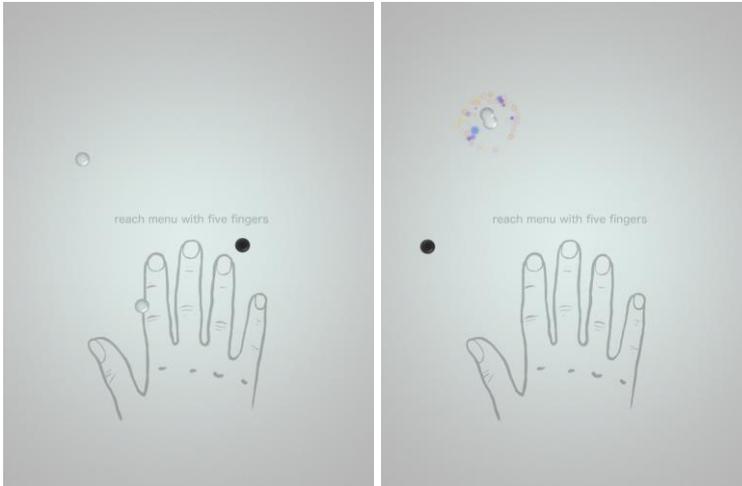


Figure 4 & 5. Screenshot of Nulis gameplay.

Key points:

- No instructions.
- Explore to figure out how the game works.
- No clear goal gives the user options.

Melodive

This game is 3D flight experience. The goal is to fly around a much as possible amidst the colorful plant-like objects on floating rocks, without hitting the ground. Melodive does not provide the player with instructions or a known goal similar to the game Nulis, but does it in a dissimilar way. While Nulis allows the player to explore in a calm and leisurely fashion, Melodive takes the player on a confusing and hectic ride. If feel more like you are shoved into a game without understanding what to do and then dying before you could figure it out. While playing this game it became clear that there was too much movement. The controls are too sensitive and it's too hard to steer. I found myself giving up because it was too difficult and left me feeling nauseous. Melodive has is more a game world filled with nonsense rather than being abstract. It had a few other features in common with our game, such 3D world in constant motion.

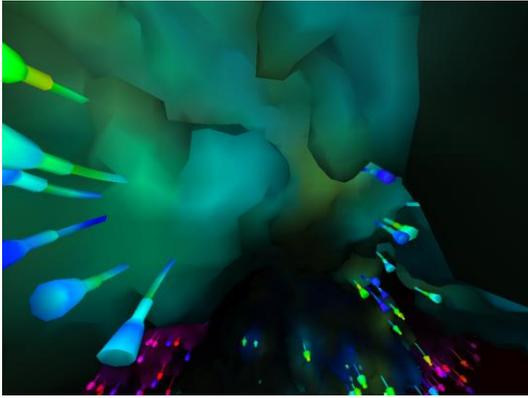


Figure 6. Screenshot of Melodive gameplay.

Key points:

- No instructions.
- Too much movement is unpleasant for the user.
- 3D world.
- User is in constant motion.

Strange Rain

In theme with the two games above, Nulis and Melodive, this is also a game without instructions. It has three mode in which you can play, wordless, whispers and story. The more you interact with the game the more strangely it behaves. Strange Rain gave a unique experience while playing. Music is a big feature in the game, similarly to the first two games. The two most interesting parts of this game was their inclusion of text in a graphic sense and the way the whole game world change by interacting with it not just a part of it or an object.

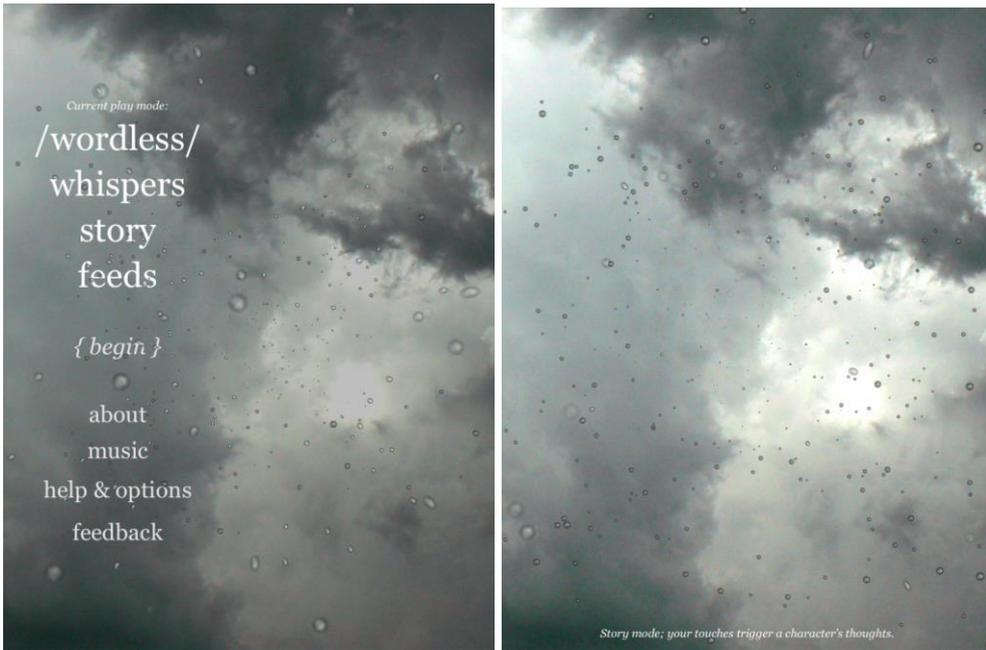


Figure 7 & 8. Screenshot of Strange Rain gameplay.

Key points:

- Use of text in game.
- Whole game world changes with interaction.
- Unique type of game.

B Machine

B Machine is also a music game. The player can control can create sounds with the help of Buddha machines. The boxes play meditative music the player can alter. This application is similar to eDrops but instead of working to create a melody with singular notes it has continuous ambient loops. B Machine is an application to create relaxation through playing with the relaxing sounds and even to meditate to.



Figure 9. Screenshot of B Machine gameplay.

Key points:

- Different ways to use the application.
- Focused on sound instead of graphics.

Essence

This application is about relaxation through breathing. Essence is a very simple, it has nice clean graphics and animations that inform the player how to breathe and for how long. Breathing right is a big part of calming exercises, such as meditation and yoga. It can also be used when a person is anxious or in a state of panic.

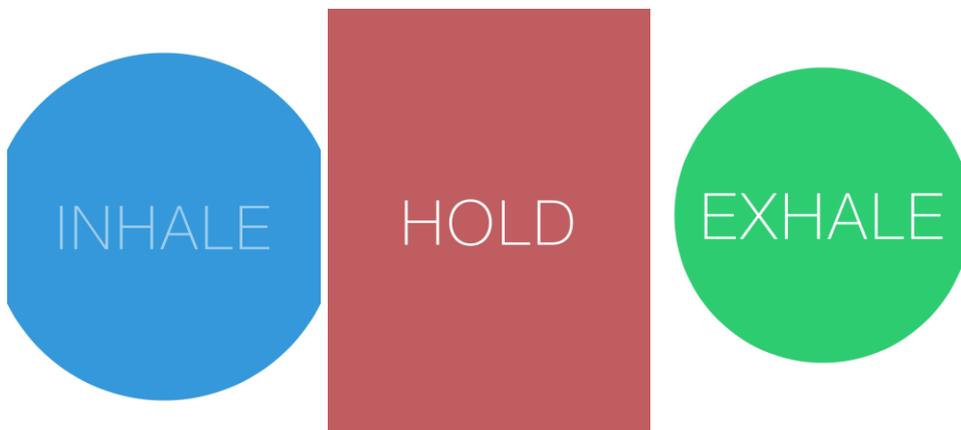


Figure 10, 11 & 12. Screenshot of Essence gameplay.

Key points:

- Simple design.
- Different kind of relaxing game.

The game research did reveal a lot of interesting things. Some that do not work for our game idea, other features that do and some that was already part of it. Many of the games had their main focus on sound and not the graphics, but because that will most likely require headphones, we decided against it. Not to say there will be no sound in our game, there will, like in almost all games. The focus will simply be on the graphics instead. The inspiration from these games that made it to the game were no instructions,

the whole game world changing with interaction and using text in a graphical way. No instructions means everything is unfamiliar which leads to an increase in the player's curiosity, which in turn leads to the player exploring the world. To make the whole game world change instead of just the objects gives more possibilities and more room for creativity in the graphics and helps the game focus more on the graphical aspect. While text is not abstract it can mean different things to different people. There was a brainstorming session with Tony Wainio of how to implement text into a moving abstract 3D world and what the text should consist of. The idea of adding text into the game was to make it more personal and increase the playability of the game. If the game asked the player a question and the answer was shown during the game, then it create new content every time the game is played. All of the games mentioned above were single player and did not require any social interaction from the player.

3.3.3 Final game concept

The final game idea is a game world made of different colors and shades and the player will be in constant movement. Abstract objects will "float around" in the game world, which the player can explore by interacting with them. It is a simple and short game that is easy to understand, not too hard so the player quits, but because there will be no instruction and to understand the player has to explore the game world, so it is not too easy. This game is meant to be played when the player is stuck, uninspired, frustrated or just stressed and need some time to cool off or relax.

The abstract world is to get the players to use their imagination and get inspiration as well as reaching a broader audience, as people find different things relaxing. This was inspired by the Rorschach tests where your subconscious tries to make sense of picture of inkblots. The game starts in a darker hue and end with a lighter hue. Lighter colors are commonly known as having a relaxing or soothing effect on people, so the game is working constantly moving towards the "light". 3D environments as mentioned is a way to ensnare the player's attention and make it easier for them to focus on the game at hand.

The first part of the game is to figure out how it works and the player will achieve this by playing the game. Mobile games are often short and played in sessions or levels. Because our game is meant to battle stress, frustration, etc. it is only supposed to reinvigorate and not distract the player. It is a short game because while playing a game for several hours might be good for you as well as take your mind of the problem at hand, the stress that we are trying to tackle will still be there.

4 DISCUSSION AND CONCLUSION

This is where idea and research come together. This chapter will look at the research and discuss the best options for the game application and the research questions from the introduction will be answered.

4.1 Implementing game design into final game concept

All of the game features noted by McGonigal can be found in our game. When a player decides to download and play our application, they do so of their own will. The goal of the game is both to “finish” the session and to feel better after playing. In the game you can’t die or lose, but there are still rules in it. To make it an optimal experience the player has to engage with the game world through taps on the screen and object found within it. The feedback the player get is not the usual kind either. The colors and speed of the game world will give the gamer feedback on when the game is ending.

The type of work featured in our game is discovery work. It is the one of the more reflective ones out of the different types of hard work. Creative work can be reflective, but our game will not have the option to create something new. Creating something may be just the stressful situation the player is trying to escape. Mental work could be seen as an option for the main type of hard work for our game, as the player is focusing on the problem at hand and there are no instructions. The focus of the game is not to e.g. solve is as quickly as possible or to strategize a platoon, but to explore the game world and figure out how it works. Discovery work makes the player curious and gives them new unexpected experience. It fits with the game idea to first figure how the game works and then to explore the game world.

The statistics from ESA supports the preliminary target group of 20-35 working year olds of both genders. The target group also fits with the casual game statistics of office workers who regularly play games during work to feel more productive or relaxed.

The casual game description fit well with the idea for our game not only because of the target group. You have to figure out the rules and the game world yourself, but it is easy

to do. The game is meant for mobile devices, and are played in sessions that the player can choose the length of. The settings page that the player sees before the game will have play time options so the player can choose how much time they have to spend on the game, e.g. during a break or bus ride.

4.2 Implementing positive psychology

As mentioned before, when playing games flow often occurs naturally. The hard work which you face and the skill you acquire contributes to it and is the easiest way to make the gamer experience it. If for instance they don't like the game then their skill will not match with the challenges and they will become frustrated. You can also take Seligman's advice and try to get gamers working with their signature strengths, but it can be difficult choosing strengths and implementing them into the game. If everyone has four signature strengths out of twenty-four, there are bound to be a lot of people playing without using their signature strengths. Our game has discovery work in it, which is hard work. Hard work will lead to challenges and challenges to flow. But to try to make this game relaxing as possible, I will be implementing pleasures as well as gratifications.

Relaxation and amusement is a low-intensity pleasure. These are components that will be in the game. I want them because they are the main emotions that the players are supposed to experience. Pleasures gives you instant happiness and positive emotions. These positive emotions will according to Fredrickson's theory help you learn better or become more creative than before. As the casual gaming research McGonigal writes about shows, people are already using games to feel less stressed during work.

Playing games in itself gives the players a sense of happiness, be it flow or just focusing on something familiar, because while games may have different rules they all have the same defining traits. I will be using a technique from Seligman's book and input it into the game as questions. Pleasures are hard to predict and everyone has their own. This is why the questions have to be ambiguous enough to fit anyone. I was inspired by the "best moments" exercise in Seligman's book, and thought of questions asking about the best moments of e.g. this week. The answers will be used in the game later on to give

the player a dose of happiness remembering a positive experience. The questions that will be used in the game are about describing the best moment of today, tomorrow, last week, next week, last year, and next year.

To get the most out of the pleasures and to keep our game from exhausting them, the enhancing techniques Seligman introduces will be used. If you use the same kind of pleasures too often they become less effective. To prevent it there will be a settings page before the game where the player can choose the color they will see in the beginning of the game world and depending on the players answers the best moment questions will also make it a bit different. While the game doesn't have a play or life limit like some games, it has timed sessions. But if you want to play again after the session, you can. In addition to the timed sessions the game is designed for a specific scenarios: when the player feels stressed, frustrated, uninspired etc. It is not a game designed for fighting boredom or connecting with people. The game features most of the savoring techniques. It uses memory-building, sharpening of perceptions, absorption and self-congratulation. In the game world you have to focus and because it is discovery work memory-building is important. The self-congratulation aspect can be in the question answers or after playing and having an "eureka" moment on the stressful situation. The mindfulness also comes in play with the discovery work. The player is exploring to understand the abstract game world.

4.3 Game concept design

4.3.1 Description and instructions

The idea for this application is an abstract 3D game. The game world will be mostly made up of different colors and shades. There will also be some abstract objects which the player can explore by tapping on them. It is a casual sort of game that doesn't take too long to play and that is easy to play. This game will be played when you are stuck, uninspired, frustrated or just stressed and need some time to cool off or relax.

The game is for mobile devices i.e. smartphones and tablets. There are no instructions but 3 slidebars to control where in the "color wheel/spectrum" the player begins, and 1

to decide the duration of the game from 5-25 minutes (with set values). The sliders are only named after colors, no emotional connotation because while some might experience the color blue as sad, others might feel that it's a calming color. The world is in a cylindrical formation, if you lean to the left/right you will end up in the same place. The background graphics will be a sort of "color wheel" (with "fields" of red, blue, green) and darker in the beginning of the game and gradually becoming lighter as the player moves forward. The surface is flat with an ambient effect.

The player is in constant forward movement, but they can move left or right by leaning their device, the more you lean the faster it goes sideways. The player is not able to jump, fly, turn around or loop up/downwards and they cannot change the speed of the forward movement.

The game world has abstract objects in it that the player interacts with by tapping a number of times. The objects have different ways of altering the game world e.g. going misty, or faster, making a sound etc. These objects will appear randomly, first seen from the distance but becoming clearer as the player goes nearer. The user will have to explore the game world to see what it is about. The answers of the question at the end of the game will be stored and featured in future gaming sessions by appearing when the player interacts with a particular object. Questions: describing the best moment of today, tomorrow, last week, next week, last year, and next year.

4.3.2 Screen descriptions – step by step

Screen 1

A loading screen as the game is starting up. A background image with the name of the game on. No spinner or loading bar.

Screen 2

A screen with 4 sliders to make the experience different for the user. The sliders control the color scheme the player first experiences and the duration of the game. The background changes color when the sliders are moved as a preview function.

The sliders:

- Tone of red
- Tone of green
- Tone of blue

Time of the game, from 5-25 minutes (has set values, 5min skips) (longer time = more objects)

Screen 3

The colors of the game will go from dark (not black) to light and the game is in constant motion.

The background graphics will be a sort of “color wheel” (with “fields” of red, blue, green), which color the player begins at depends on the slider values on page 2.

The player can move through the colors by left and right tilt motion. The game starts of at a quicker pace and slows down and becomes more relaxing nearing the end.

Objects will appear randomly, first seen from the distance but becoming clearer as the player moves nearer. Not all objects will appear in every gameplay but those that do will pop up more than once. (3-4 objects for 5min)(Longer time = more objects)

Types of objects (they all look different):

- Object 1 = 1 tap = small sound and raindrop ripple effect (small).
- Object 2 = double tap = pulse wave.
- Object 3 = 4 taps = misty.
- Object 4 = swipe right = the object bounce up and down twice while giving of a shine/aura.
- Object 5 = swipe left = background colors become long “blocks” (no gradient effect).
- Object 6 = drive through = a momentary burst of brightness.

- Object 7 = drive through = background colors become “pixelated” (no gradient effect).
- Object 8 = drive through = shows 1 (random) answer to the questions on Page 4 on end screen (only appears if player has played before).
- Object 9 = drive through = background becomes dark, only objects have colors.

The game will come to a gradual stop when the time is up and the screen is white.

Screen 4

A screen with a question to make the experience better next time. The answer is saved in the local storage to later appear in the game as the user clicks a specific way or on an object. The questions are: describing the best moment of today, tomorrow, last week, next week, last year, next year (character limit).

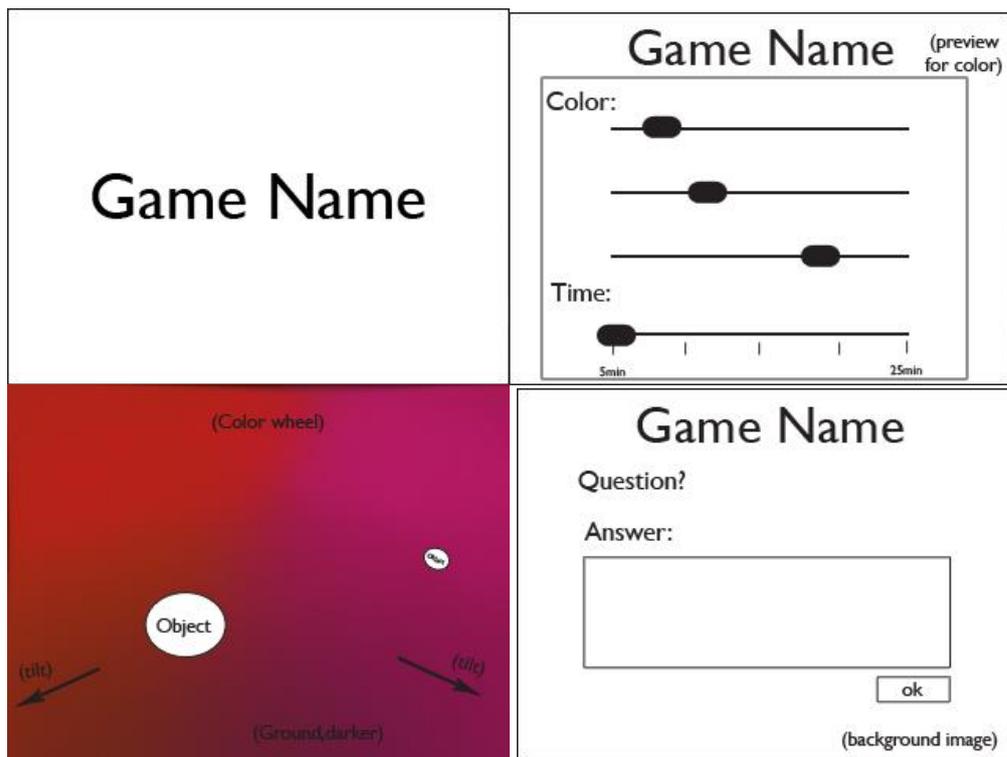


Figure 13, 14, 15 & 16. Sketches of screen 1-4 in game.

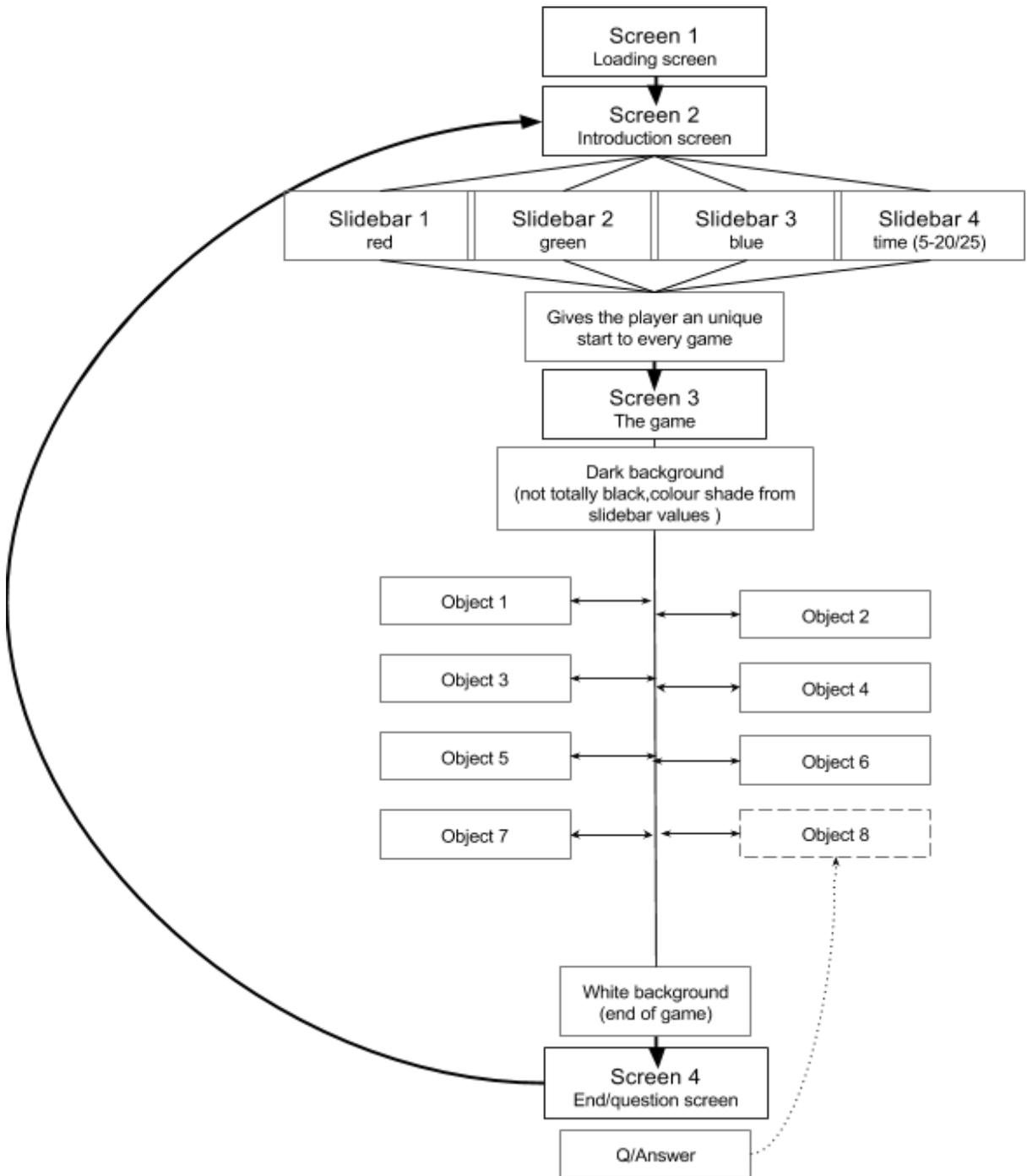


Figure 17. Flowchart of gameplay.

4.4 Conclusions

The aim for this thesis was to make a game concept that will help the player relax by implementing positive psychology into the game. This was done by theoretical research, thought experiments and game research. The theoretical research answered the questions on how to incorporate positive psychology into the game and what makes a game, a game. The thought experiments and game research answered, what a relaxing game looks like and what the game design concept looks like. The other part of this thesis project, the making of the game, was handled by Tony Wainio.

Although the research was theoretical, the aim of the thesis is practical. The next step for this game is to produce a version of the game on at least one platform and test a small group of users. The thought experiments have provided a starting point and practical information; user feedback will move the project forward. The test would consist of both eye tracking and detailed questionnaires to discover the users feelings and if the game influence them in any way. The game concept as it is now has limitations but will benefit and evolve with user feedback. Following this, the game will go through a cycle of adjusting and testing until satisfied that it reached its aims. This stage will be followed by a releasing a beta and user testing it for a long period of time, to see how it works. If it works it will have place in the market, because of the high stress people experience in modern society.

REFERENCE

Bosomworth, Danyl. 2014, *Mobile marketing statistics 2014*, Smart Insights. Published 24.3.2014.

<http://www.smartinsights.com/mobile-marketing/mobile-marketing-analytics/mobile-marketing-statistics/> Accessed 1.5.2014.

Brown, James Robert. & Fehige, Yiftach. 2011, *Thought Experiments*, Stanford Encyclopedia of Philosophy. Published 28.12.1996. Revised 29.7.2011.

<http://plato.stanford.edu/entries/thought-experiment/> Accessed 2.6.2014.

Csikszentmihalyi, Mihaly. 2008, *Flow: The Psychology of Optimal Experience*, HarperCollins e-books.

Dahlstöm, Lucas. 2014, *Försvunnet plan söks på nätet*, Svenska.yle.fi. Published 13.3.2014.

<http://svenska.yle.fi/artikel/2014/03/13/forsvunnet-plan-soks-pa-natet> Accessed 13.3.2014.

Essential facts about the computer and video Game Industry: 2010 Sales, Demographic and Usage Data, ESA. Published 2010.

http://www.theesa.com/facts/pdfs/esa_essential_facts_2010.pdf Accessed 23.2.2014

Essential facts about the computer and video Game Industry: 2013 Sales, Demographic and Usage Data, ESA. Published 2013.

http://www.theesa.com/facts/pdfs/ESA_EF_2013.pdf Accessed 23.2.2014

Game Player Data. 2013, ESA. Published 2013.

<http://www.theesa.com/facts/gameplayer.asp> Accessed 23.2.2014.

McGonigal, Jane. 2012, *Reality is broken. Why games make us better and how they can change the world*, Vintage.

Seligman, Martin E. P. 2003, *Authentic Happiness. Using the new positive psychology to realize your potential for lasting fulfillment*, Nicholas Brealey Publishing.

The Evolution of Mobile Games. 2012, ESA. Published 2012.

http://www.theesa.com/games-improving-what-matters/The_Evolution_of_Mobile_Games.pdf Accessed 23.2.2014.

Today's stress is different. 2012, Institute of Heartmath Newsletter. Published summer 2012, Vol.11, No.2.

<http://www.heartmath.org/templates/ihm/e-newsletter/publication/2012/summer/todays-stress-is-different.php> Accessed 10.11.2014.

APPENDIX 1. SUMMARY OF THE MAIN ARGUMENTS IN SWEDISH

Introduktion

Introduktionen inleder examensarbete med att beskriva bland annat motivet och syftet. Spel och stress är faktorer som vi upplever i vårt dagliga liv oftare än tidigare. Varför inte kombinera de två för att göra ett spel för att hjälpa hantera stress? Det är vad detta examensarbete utforskar. Från den första idén till ett färdigt koncept. Spelkonceptet kommer att byggas av, Tony Wainio, den andra delen av detta examensarbete.

Motiv för ämnesvalet är det faktum att människor idag är stressade. Stress är inte nödvändigtvis dåligt, men de som är dåliga på att hantera det eller uppleva en hel del av det känns olycklig. Det finns de som tror att en stor del av stress har att göra med vår ständiga uppkoppling till allt och alla, och sedan finns det de som hävdar att det har mindre att göra med de olika apparater eller nätverk och mer att göra med t.ex. arbete eller studier. Det är denna typ av stress som spelet kommer att ta itu med.

Syftet med arbetet är att öka avslappning, lycka och/eller flow(flöde) hos användarna genom vårt spel. Detta kommer att ske genom att använda positiv psykologi i spelkonceptet. Avhandlingen fokuserar mer på vilken del passar bäst och hur detta görs genom den valda litteraturen, tankeexperiment och teoretiska möjligheter. Fokus finns alltså på att göra den första versionen än att användaren testat ett spel. Målet är att ha ett spelkoncept att ge till Tony Wainio, som kommer att göra den första versionen av spelet som sin avhandling. Vårt examensprojekt kan även vara en version av relativt ny genre av spel, speciellt riktade mot stress.

Frågeställningarna i arbetet som stöder syftet är:

- Hur uppnå spelaren lycka, avkoppling eller flow genom spelvärlden?
- Hur man sätter man positiv psykologi i vårt spel för att nå dessa mål?
- Hur gör man idén till ett spel som uppfyller alla krav av en?

Avgränsningarna är få. Användartestning är den första begränsningen i detta examensarbete. Målet med studien är färdiga koncept, inte produkttestning. Att medvetet undvika en social miljö påverkar också spelvärlden.

De huvudsakliga teoretiska ramarna i avhandlingen kommer från tre böcker. Authentic happiness av Martin E.P. Seligman, Flow - The Psychology of Optimal Experience av Mihaly Csikszentmihalyi och Reality is broken av Jane McGonigal. Andra böcker och artiklar användas också, men inte i samma grad som dessa.

Bakgrundsinformationen beskriver positiv psykologins, flows, tankeexperiment och spels historia. Även hur spel kan förbättra världen beskrivs.

Metoder

Metodiken i denna avhandling är att använda både böcker och tankeexperiment. Tankeexperiment och spelforskning används för att få en spelidé och hur man bygger spelet och skapa flöde kommer från böckerna. Sedan formas spel idén till en färdig version av spelkonceptet med avhandlingens syfte i åtanke.

Materialbeskrivningen går igenom de böcker som nämndes i den teoretiska referensramen. Den går även igenom andra viktiga källor såsom statistik och tankeexperiment.

Resultatredovisning

För att klassificeras som ett spel och förhoppningsvis ett spel som gör verklighet bättre, det finns olika typer av egenskaper som måste uppnås. Dessa egenskaper är hämtade från Jane McGonigal bok Reality is broken och kommer att användas för att göra spelidén till ett spelkoncept. I redovisningen av forskningen om speldesign tas olika element upp. Dessa element är de fyra definierbara egenskaper hos spel, hårt arbete (hard work) i spel, användarstatistik, spelstatistik och småspel (casual games).

Redovisningen om positiv psykologi beskriver de mest passande sorterna, hur man kan uppleva dem och hur de påverkar en. Speciellt nämns flow, som är en del av positiv

psykologi. De andra delarna av positiv psykologi som nämns är positiva känslor, styrkor och dygder, njutning och tillfredsställelse, goda och dåliga tankar.

Tankeexperimenten i denna avhandling var utförda på spelkonceptet för dess utveckling, med andra ord använder jag dessa experiment att bestämma hur spelet ska vara. Tony Wainio hjälpte processen gå vidare med sin rådgivning av spelets mekanik och feedback på idéer. Undersökning av existerande spel hjälpte också spelets utveckling.

Spelforskningen avslöjade en hel del intressanta saker. Några aspekter som inte fungerar för vår spelidé, andra element som gör och några som redan var en del av idén. Många av spelen hade sin huvudsakliga inriktning på ljud och inte grafiken, men eftersom det med största sannolikhet kommer att kräva hörlurar, beslutade vi mot det. Inte att säga att det kommer att finnas något ljud i vårt spel, det kommer. Fokusen är helt enkelt vara på grafiken istället. Inspirationen från dessa spel som gjorde det till vårt spel var att det inte fanns instruktioner, hela spelvärlden förändras med interaktion och använda text på ett grafiskt sätt. Inga instruktioner innebär att allt är obekant vilket leder till en ökning i spelarens nyfikenhet, vilket i sin tur leder till att spelaren utforskar världen. För att göra att hela spelvärlden förändras istället för bara några föremål ger fler möjligheter och mer utrymme för kreativitet i grafiken och hjälper spelet att fokusera mer på den grafiska aspekten. Jag hade en brainstorming session med Tony Wainio om hur man tillägger text i en rörlig abstrakt 3D-värld och vad texten ska bestå av. Idén om att lägga till text i spelet är för att göra den mer personlig och öka spelbarheten av spelet. Om spelet frågade spelaren en fråga och svaret visades under spelet, skapar det nytt innehåll varje gång spelet spelas.

Den slutliga spelidén är en spelvärld som består av olika färger och nyanser. Spelaren kommer att vara i ständig rörelse. Abstrakta objekt kommer "flyta runt" i spelvärlden, där spelaren kan utforska genom att interagera med dem. Det är en enkel och kort spel som inte är för svårt så att spelaren slutar, men eftersom det inte kommer att finnas någon instruktion så måste spelaren utforska spelvärlden för att förstå den, så det är inte alltför lätt. Detta spel är tänkt att spelas när spelaren har fastnat, är oinspirerad, frustrerad eller bara stressad och behöver lite tid för att lugna ner sig eller koppla av. Den abstrakta världen är att få spelarna att använda sin fantasi och få inspiration samt nå en

bredare publik, eftersom människor tycker olika saker avkopplande. Spelet börjar i en mörkare nyans och avslutas med en ljusare nyans. Ljusare färger är allmänt kända för att ha en avkopplande eller lugnande effekt på människor, så spelet rör sig ständigt mot "ljuset". 3D-miljöer som nämns är ett sätt att fånga spelarens uppmärksamhet och göra det lättare för dem att fokusera på spelet till hands.

Den första delen av spelet är att räkna ut hur det fungerar och spelaren kommer att uppnå detta genom att spela spelet. Mobila spel är ofta korta och spelade i sessioner eller nivåer. Vårt spel är tänkt att kämpa mot stress och frustration. Det är bara tänkt att inte distrahera utan blåsa nytt liv i spelaren.

Diskussion och slutledning

Det är där idé och forskning möts. Detta kapitel tittar på forskningen och diskuterar de bästa alternativen för spelet och forskningsfrågorna från introduktionen besvaras. Jag implementerar både speldesign och positiv psykologi från forskningen, detta leder till ett färdigt spelkoncept. Spelkonceptet har en beskrivning, instruktioner och en steg för steg beskrivning av spelandet.

Slutledning

Målet för denna avhandling var att göra ett spelkoncept som hjälper spelaren koppla genom att tillägga positiv psykologi i spelet. Detta gjordes genom teoretisk forskning, tankeexperiment och spelforskning. Den teoretiska forskningen besvarade frågorna om hur man inför positiv psykologi i spelet och vad som gör ett spel, ett spel. Tankeexperimenten och spelforskningen svarade, hur ett avkopplande spel ser ut och hur spelkonceptet ser ut. Den andra delen av detta examensprojekt, byggandet av spelet, sköttes av Tony Wainio.

Trots att forskningen var teoretiska, är syftet med avhandlingen praktisk. Nästa steg för detta spel är att producera en version av spelet på åtminstone en plattform och testa en liten grupp av användare. Tankeexperimenten har gett en utgångspunkt och praktisk information; användarfeedback kommer föra projektet framåt. Testet skulle bestå av både ögonspårning och detaljerade frågeformulär att upptäcka användarnas känslor och om spelet påverka dem på något sätt. Spelkonceptet som det är nu har begränsningar, men

kommer att gynnas och utvecklas med feedback från användarna. Efter detta, kommer spelet att gå igenom ett kretslopp av justering och testning tills nöjd att den nådde sina mål. Denna etapp kommer att följas av en släppa en beta och användartesta det under en längre tid, för att se hur det fungerar. Om spelet fungerar kommer den att ha plats på marknaden, på grund av den höga stress människor upplever i vårt moderna samhället.