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Thesis proposal

Research in Strategic Management

Pokémon Go- Intention to play

By

THESIS PROPOSAL

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# Preface

This thesis proposal is an assignment requested by NHL Stenden University of Applied Sciences as part of the 3rd year module ´Strategic Management.´ The basic objective behind this proposal is to get knowledge tools of the different research process. In this report, I have included the various concepts of research concepts. This proposal helped me to enhance my knowledge regarding the stages of doing research. Through this report, I come to know the importance of color been linked to health, culture, religion, and emotions. The proposal was designed to present results of quantitative research about the topic of Pokémon Go play intention if there is a difference in reaction of the audience on how they perceive graphics image in gaming, either in black and white or in color screen.

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# Introduction

Entertainment industry comprised of all services and activities like music, opera, television, online video games, theatre, film, etc., (Finsterwalder, 2016). Smartphones and tablets introduced new categories of games such as mobile and social games. In 2006, online games came with Wi-Fi capabilities for online multiplayer and also have integrated capabilities called WiiConnect24 (Rivenes, 2017). Pokémon Go is an augmented reality (AR) mobile game that allows gamers to deeply engaged in virtual environments. Pokemon Go temporarily changed the way we gamed and interact with each other. (Bigfish, 2017). It brings people together in a community to communicate with each other about where to found certain Pokemon characters. It came in solid graphic images and colors. The three basic categories of color theory are (1)the color wheel, (2) color harmony, (3) the context of how colors are used. The scientists and artists have studied and designed many variations of the concept of colors. The human brain will reject what it cannot recognize and what it cannot understand. Colour harmony delivers visual interest and a sense of order. Colors have been linked to health, culture, religion, and emotions. Colors can strongly influence moods and feelings in both positive and negative way and also enhances human metabolism. According to researchers, it increases respiration rate and raises blood pressure. Colour is beneficial to the mind and body. The truth behind the myth is that black is the most recessive color that not drawing attention but makes people smarter. The screen wasn't as colorful back in the 90s, the concept of gaming within the virtual technology world is enhanced because players use games as arenas in which they explore new relationships, new places, and a new contact. According to Csikszentmihalyi, an escapist experience can be defined as the extent to which an individual is completely engaged and completely occupying mentally in the activity (prior, 1958).

# Literature Review

## 2.1 The history of online gaming

Initially, the video game was invented in the 1950s as Academic training tools (Desjardins, 2017). German- American Ralph Baer invested video game for his pioneering work in electronics and television engineering and died at the age of 92 (Mullis, 2014). In recent years, the emergence of social networks, Smartphones, and tablets introduced new categories such as mobile and social games.

Entertainment industries comprise all services and activities like music, opera, television, online radio games, theatre, film, etc., (Finsterwalder, 2016). As the internet was improving in the 90s online gaming was popular. In the era of 2000, the release of gaming consoles with internet capabilities was invented that become the biggest part of the online gaming experience. The Sega Dreamcast and Sony PlayStation 2 was released in 2000, recognized as the first online game with internet capabilities. In 2006, online games came with Wi-Fi capabilities for online multiplayer and also have integrated capabilities called WiiConnect24 (Rivenes, 2017). PokemonGo is the game that brings people together in society and encourages them to communicate with each other about where they found certain Pokemon characters. The gamers are also discussing other techniques and tips involving the game that makes people interact with each other (Spence, 2016).

## 2.2 Color theory

Colour theory surrounded with a multitude of definitions, concepts, and design applications. However, there are three basic categories of color theory that are logical and useful (1)the color wheel, (2) color harmony, (3) the context of how colors are used. A color circle is based on red, yellow and blue color is a traditional idea in the field of art. In 1666, Sir Isaac Newton developed the first circular diagram of colors. Since then, scientists and artists have studied and designed many variations of this concept. In reality, any color circle or color wheel which presents a logically arranged sequence of pure color has a great advantage. Red, Yellow and blue are the primary colors whereas green, orange and purple are the secondary color and tertiary are the colors formed by mixing a primary and secondary color. Color Harmony is the something that pleasing to the eye. The human brain will reject what it cannot recognize and what it cannot understand. Colour harmony delivers visual interest and a sense of order (Morton, 2018). Colors have been linked to health, culture, and religion, emotions for centuries. In Ancient Egypt, the color was used as healing techniques, while cultural studies found that specific colors can be sacred or close to being denied based on religious perspectives, and be linked to stereotypes (Singh, 2006). Proper use of colors can contribute not only to differentiate products from competitors but also to influencing moods and feelings both positively and negatively (Singh, 2006). Colour is a powerful communication tool and can be used to signal action, influence mood, and even influence physiological reactions. Colour enhances human metabolism, increases respiration rate, and raises blood pressure (Rikard, 2015).

## 2.3 Augmented Reality/ Graphic images - Pokémon Go

Pokémon Go is an augmented reality (AR) mobile game developed and published by Niantic for iOS and Android devices. We have the sense of the next possible evolution of gaming in the year 2016 when Pokemon Go is released. Pokemon Go change the way mobile generate revenue. Pokemon Go uses the mobile devise GPS to capture, locate, and battle the virtual creature that appears as if they were playing in the real world location (PokemonGo, 2018). Graphics image have changed over the years because of the use of technology to create games. Generally, the representation and manipulation of a graphics image in any gadget are useful with the help of software and hardware. (Eberly, D. H. 2006).

AR is developed into apps in digital components in the real world that generated enhancement upon an existing reality to make it more meaningful through the ability to interact and motions (Augment, 2017). The technology allows gamers to deeply engaged in virtual environments and it temporarily changed the way we gamed and interacted with each other. (Bigfish, 2017). 7

## Colour Screen Vs. Black and White Screen

In the early 1990s, digital images were being produced in all kinds of hardware, using all kinds of software, with and without embedded color space (Stone, 2015). Screen weren't as colorful back in the 90s, in 1998 the company called Siemens came up with the first phone with a color display. In 2000, Nokia put the color display to use so that the user could access the web, play games, and view images with a 4096 color palette. In late 2001, Ericson T68 was launched and packed with cool features, including 256 color screens with high resolution (T, 2014). In 2008, Apple‘s iPhones 3G came with high technology and a touch screen that became the high choice for mobile gamers (Doradus, 2013). Colour is one of the most powerful group use to express metaphors and also to translate visual languages. Research shows that a color screen is used to evoke emotion and mood and also associated with a positive effect while Black & white color associated with more negative(Medina. 2014).

The truth behind the myth is that black is the most recessive color that is not drawing attention rather than making people look slimmer. In effect, white reflects the full force of the spectrum into our eyes. The black color is uncompromising, clean, hygienic, and sterile. The concept of sterility can also be negative. Visually, white color gives a heightened perception of space. The negative effect of white on warm colors is to make people look brighter and harsh (Wright, 2018).

## Intention to play

Escapism: according to Csikszentmihalyi, an escapist experience can be defined as the extent to which an individual is completely engaged and completely occupying mentally in the activity. Escapist experiences are deeply engaged and require flowing participation (prior, 1958). The rising popularity of mobile gaming is the main reason why gamers are increasing (Sullivan, 2014). The Researcher (ELSPA, 2004) explained that the gamers within the virtually technological world are enhanced because players use games as arenas in which they can explore new relationships, new places and new contact (ELSPA, 2004). Pokémon Go allows players to leave their house, walk long distances and explore their communities.

Overall, findings prove that the use of colors can contribute not only to differentiate products from competitors but to influence moods and feelings in both positive and negative ways (Singh, 2006). Gamers within the virtually technological worlds are enhanced because players use games as arenas in which to explore new relationships, new places, and a new contact.

# Problem definition and Operationalization

### 3.1 Research question and objectives

**Main Question**

From the trigger and the objective of this research the main question can be formulated. This question will summarise the goal of this research.

“Is the intention to play differently when gamers between 20– 25 are presented with either a color black and white screen.”

**Objectives**

The objective is to identify whether there will be the existence of any difference in playing intention when the target audience is presented with either the black and white or colored screen.

**Hypotheses**

Concluding from the literature review, it can be established that there is a difference between the reaction of the audience on how they perceive graphics image in gaming either in black and white or in color screen.

The independent variable in this research will be the Pokémon go with colored or black and White screen

The dependent variable in this research will be the Intention to play

H0: A = B

H1: A ≠ B

Above is the framework of H0 and H1 hypothesis that will be presented for the research work.

A -It can be described as intentions to play Pokémon go after being presented with a black and white screen

B- It can be described as intentions to play Pokémon go after being presented with a color screen

Putting the framework into words and the results into the following hypothesis

**H0: There is no difference exists in intention to play after being presented with either a black and white or colored screen of pokemon Go.**

**H1: There is a difference exists in intention to play after being presented with either a black and white or colored screen of pokemon Go.**

### 3.3 Operationalization

The aim of the quantitative study is to make use of tools such as questionnaires as an instrument. The literature review clearly shows that there is a difference in how black and white screen versus colored screen is perceived by the gamers. With this research, a test will be conducted to find out whether it also makes a difference in the playing intention of the users after being presented with either a black and white or a colored screen of Pokémon go. If black and white provoke different emotions and feelings than colors, it might provoke a different action. Desired actions of Pokémon go to make the gamers want the product and eventually play the game. In this research, it will be tested that if it makes a difference which screen is used in Pokémon go and if it makes games developer could make use of this knowledge and explore it further if possible.

The following research is quantitative research, as it consists of numbers and closed-ended questions. The method is explanatory research that explains a certain experiment. The experiment about testing whether there will be a difference in playing intention when using a black and white or colored screen of Pokémon go game. This particular experiment is summarized in the following main question:

The concept of this research proposal will be related to the intention to play. This is what is going to be measured in this research. Intention to play does not have any dimensions, as it can’t be measured or affected by different dimensions. The variable is derived from the questions and is the parts that measure the intention to play the game. In this case, mood & willingness to play the game is the variables

**Concept, dimensions & variables**

**Concept Dimension Variables**

Intention to play no dimension Willingness & mood

“Is the playing intention different when gamers between ages of 20 – 25 are presented with either a color or black and white screen graphics image?”

# Methodology and procedures

### 4.1. Data collection

Survey methods will be used to complete the research through self-reported questionnaires created with google form. The target group of this research and therefore the participants who are going to participate in the experiment in the form of the questionnaire are both males and females aged 20 - 25. They live independently and completely understands the meaning of colors. This target group is exposed to a lot of color screen on a different platform. The target group lives anywhere in the north of Leeuwarden, and their occupation is a student. The target group will be presented with a customized gadget with Pokémon go installed on it. This screen will be either in black and white or in color, and they will play the game for the maximum of 30 minutes. Afterward, they will have to answer certain questions about the color screen and black and white screen and also about their intention to play the game after seeing the screen using mood measuring scale( Desmet, P. M., Vastenburg, M. H., & Romero, N. 2016). See Appendix.

To perform the research properly, a questionnaire will be created, and an experiment will be conducted to test the hypotheses. We will randomly assign individual into groups of group A, and group B. Group A receive B& W screen and group B will receive the color screen.

Participants then had to answer questions about the game they play time. The participants were reached out to online as the questionnaires were published in Google Forms. The data of these questionnaires will be collected and analyzed in SPSS. Within SPSS a chi-square test will be made to test the hypothesis. Also, Excel will be used to create the display to get some more insights into the answers of the participants (Baarda, 2014).

**Procedure**

The random sampling will be used among the target group male and female between ages 20-25 years old. A random sample was recommending in which each in the population has an equal probability of being selected. One hundred participants will be randomly selected 50% male and 50% female. During the design of the experiment the read, compare, randomize and repeat technique will be used, and PICO will not be left out.

PICO

**P**opulation – Male and Female aged between 20 – 25 basically the student

**I**ntervention- A black and white screen gadgets with Pokémon go installed

**C**ontrol -A colored screen gadget with Pokémon go installed

**O**utcome –Intention to play

### 4.2 Data analysis

The survey instrument of data collection will be a questionnaire based on mood and willingness to play. The validated survey instrument is available online to validate the reliability and validity of data across the sample. The survey research will measure the intention to play of Pokémon go based on random samples from populations’ sample. The respondent will be selected randomly without bias.

# Critical evaluation

While studies by Researcher (Augment, 2017) generally claim that virtual reality allows gamers to stimulate the environment, AUSM( 2016). The research workshops and the process of writing the assignment give me an opportunity to reflect on the past learning. The workshops were not structured. This made it difficult to understand the assignment but follow the instructions on blackboard help a lot. The workshops itself were really helpful, but the provided feedback from peers and tutor are not enough.

Chosen the research method, I was not entirely unbiased deciding on a quantitative approach with a questionnaire, because previous experiences with this approach are always a happy ending. Also, I am only focusing on Pokémon Go because it is new and is commonly used by both male and female most especially the student.

Writing a thesis proposal was daunting at first because I don’t get enough feedback in choosing the right topic. However, thanks to the workshops and previous knowledge, the whole project was less daunting and difficult to work on than I could imagine.

# Appendix

Questionnaire base on the mood of measuring scale (Carmichael, 2012)

|  |  |
| --- | --- |
| 1. **How do you rate Pokémon Go game graphic images in general?** | **Ans. - I don't like it at all 3- neutral 5 - I like it a lot** |
| 1. **What do you think of the usage of color in Pokémon Go game?** | I don't like it at all 3- neutral 5 - I like it a lot |
| 1. **What emotion does this game trigger (select at least one)** | Happy, angry, sad, afraid |
| **4. How do you feel if you look at the screen before play the game (select at least one)** | Ans. Excited, interested, satisfied, related, relaxed, courageous, energetic, surprised, annoyed, irritated, provoked, upset, disappointed, offended, and passionate.  Other: |
| **5. How often do you play Pokémon Go game?** | Ans. Never, once a week, every day, between once a month and once a week, anytime. |
| **6. What triggers you to Play the Pokémon Go (rate 1-most important 4-least)** | Ans. The resolution, positive reviews, my close friends also play the Pokémon Go so, I want to play it too, the storyline, the images, to meet people, I want to high level  Other: |
| **7. After seeing both black and white and color screen, would you play the game?** | Ans. Yes, because:  No, because: |
| **8. After seeing both black and white and color screen, would you confuse others to play the game?** | Ans. Yes, because:  No, because: |
| **9. How old are you?**  **10. What is your gender?** |  |

Measurement level

|  |  |
| --- | --- |
| **Question** | **Measurement level** |
| **1. How do you rate games graphics image in general** | Ordinal |
| **2. What do you think of the usage of color in this graphics image?** | Ordinal |
| **3. What emotion does this graphics image Pokémon go trigger?** | Categorical |
| **4. How do you feel if you look at the graphics image in Pokémon go?** | Categorical |
| **5. What triggers you to play a new Pokémon go?** | Categorical |
| **6. How often do you play this game?** | Ordinal |
| **7. After seeing both graphics images in B&W and Color, would you recommend to friends?** | Ordinal |
| **9. How old are you?** | Ratio |
| **10. What is your gender?** | Categorical |

References

Baarda, B. (2014). Research. This is it. In R. T. it, *How do you analyse report the data* (p. 138). Groningen: Noordhoff.

Doradus, S. (2013). *StellaDaradus*. Retrieved 2018, from www.stelladoradus.com/history-mobile-phones.

Morton, J. (2018). *Basic colour Theory*. Retrieved 2018, from www.colormatters.com/color-and-design/basic-color-theory.

Singh, S. (2006). *Emeraldinsight*. Retrieved 2018, from www.emeraldinsight.com.

Stone, E. (2015). *History of the Very Odd sRGB Color Space*. Retrieved 2018, from www.ninedegreesbelow.com.

Sullivan, G. (2014). *Wall Street Journal reported*. Retrieved 2018, from www.washingtonpost.com/news/morning-mix/adult-women-gamers-outnumber-teenage-boys.

T, N. (2014). *PhoneArena*. Retrieved 2018, from www.phonearena.com/Did-you-know-which-was-the-first-phone-with-a-color-display.

Augment. (2017). *Augment*. Retrieved 2018, from [www.augment.com/blog/virtual-reality-vs-augmented-reality](http://www.augment.com/blog/virtual-reality-vs-augmented-reality)

Medina, G. (2014). A Multimedia Foodie. *Month*.

Bergen, M. (2016). *Recode*. Retrieved 2018, from www.recode.net/2016/niantic-labs-ingress-pokemon-go-augmented-reality.

Bigfish. (2017). *Bigfishgames*. Retrieved 2018, from www.bigfishgames.com/blog/2017-video-game-trends-and-statistics-whos-playing-what-and-why.

Cherry, K. (2018, May 23). *verywellmind*. Retrieved 2018, from

ELSPA. (2004). CHICKS and Joystick. *Entertainment and Leisure software Publisher Association*, 14.

Finsterwalder, J. (2016). *Film Trailers on Shaping*. Retrieved 2018, from https://core.ac.uk/download/pdf/35468320.pdf.

Mazurek, M. (2013). *ScienceDirect*. Retrieved 2018, from https://www.sciencedirect.com/science/article/pii/S175094671200116X.

Mullis, S. (2014, 12 08). *Inventor Ralph Baer, The 'Father Of Video Games,' Dies At 92: All Tech Considered*. Retrieved 2018, from https://www.npr.org/sections/alltechconsidered/2014/12/08/369405270/inventor-ralph-baer-the-father-of-video-games-dies-at-92?t=1536595548381.

Murphy, C. M. (2016). *NCBI*. Retrieved 2018, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4940003/.

NIH. (2016). *MedlinePlus*. Retrieved 2018, from https://medlineplus.gov/autismspectrumdisorder.html.

Plunkett, L. (2011). *Kotaku*. Retrieved 2018, from https://kotaku.com/5806664/how-pokemon-was-born-from-bug-collecting-and-aspergers-syndrome.

PokemonGo. (2018). *Pokemongo*. Retrieved 2018, from https://www.pokemongo.com/en-us/.

Rivenes, L. (2017). *The history of the online game*. Retrieved 2018, from https://datapath.io/resources/blog/the-history-of-online-gaming/.

ScienceDaily. (2018). *Computer and video games*. Retrieved 2018, from https://www.sciencedaily.com/terms/computer\_and\_video\_games.htm.

Spence, B. (2016). *The Benefits And Negative Effects Of Pokemon Go*. Retrieved 2018, from https://www.theodysseyonline.com/boyfriend-plays-fortnite.

Statistia. (2018). *Video Game Industry*. Retrieved 2018, from https://www.statista.com/topics/868/video-games/.

Theguardian. (2016). *The Guardian*. Retrieved 2018, from <https://www.theguardian.com/technology/2016>, pokemon-go.

Vincent, B. (2017, 02). *PCGamer*. Retrieved 2018, from <https://www.pcgamer.com/a-brief-history-of-online-gaming-on-the-pc/>.

Eberly, D. H. (2006). *3D game engine design: a practical approach to real-time computer graphics*. CRC Press.

Desmet, P. M., Vastenburg, M. H., & Romero, N. (2016). Mood measurement with Pick-A-Mood: the review of current methods and design of a pictorial self-report scale. *Journal of Design Research*, *14*(3), 241-279.

Prior, A. N. (1958). Escapism: The logical basis of ethics.