My Creative Genius Project

The Creative Genius Semester 2018-2019

Aalborg University

AALBORG UNIVERSITET

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Important Notice to the Reader
The Creative Genius Semester is an interdisciplinary semester offered as an opportunity to all students at their 9. semester at Aalborg university. The purpose is to teach the student how to be more creative in general and how to add creative methods to any kind of project in any field of knowledge. Find more about the program on (www.creativegeniussemester.aau.dk)

This document is a collection of all my written work conducted on the Creative Genius Semester at Aalborg university. It consists of:

- *Chapter (1-3) describes the projects introduction, results and possible impacts.*
- *Chapter (4-10) is a documentation of selected parts of a creative genius project. It demonstrates the ability to use specific creative methods for working creatively within a field or profession.*
- *Chapter (11) demonstrates the ability to reflect, analyse and develop a conceptual model that explains how my creativity works in relation to develop as a creative genius. This is my own theory about how I can use my creativity in future work and projects.*
- *Chapter (12) demonstrates the ability to design and execute a creative process.*
- *Chapter (13) demonstrates the ability to design and execute a creativity training programs for myself and others*
- *Chapter (14) My final reflections on becoming a Creative Genius*

The document is structured so that all written in italic is pre-printed by the Creative Genius study board, while all that is non-italic has been is written by the student.

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0. Summary

- *Here I give a short description (max 1 page) of my project explaining the main idea in what I have been working on. I also give a short description of the impact I made/tried to make with my idea*

The main idea and focus of my Creative Genius project is to invent a way, whether it is a software game, a special device or a customized setting in order to increase the professional creativity levels of Web Developers at their working environment. Following specific steps, rules and methods through the whole course I managed to come up with an idea about a software game called – "Creative Coding Arena". The idea behind the software would be that it would represent a game-like open source environment in which 2 Web Developers would challenge their knowledge and creativity in a speed test in which the software would generate different assignments to the developers which they would have to solve in the fastest way possible in order to defeat their opponent colleague. The rules are quite simple – you code the specific task in the most creative and fast way possible, and you get additional points based on the 2 factors – productivity and speed.

The impact that the project is aiming for is related to the process of getting the Web Developers in a creative state of mind which is somewhat, if not entirely, related to their professional field. In order for their creativity as professional Software Developers to be increased and be improved this game would be challenging their skills and knowledge in comparison to a colleague of theirs in a game environment.
The game's core would include a main menu with different spheres of their work and knowledge in order for the software to match a correct setting for the developers to play in. The other setting of the game would be the Gaming Arena itself which would be represented by a main "battlefield" in which the open source of the 2 developers would be displayed for both and everybody else to see on a main screen of the big display. By using methods and theories learned through the course I was able to involve in some ways different kinds of experts in order to analyse different aspects of my visions about the game. One of the greatest impacts that I would be aiming at with this game would be to increase the process of creative thinking in Web Developers at their daily working environment.

1. Introduction

- *Here I describe (max 10 pages) my project explaining my focus and the main idea I have been working on during the project*

This paper reveals different methods, theories and techniques on how I managed to create a proper creative setting and environment for myself, using knowledge from different sphere of studies in order to come up with a solution for a burning question which I defined through the time of the course. By defining a burning question I was able to assign myself a problem related to a sphere in which I had interest and more or less knowledge. The creativity related to my profession has always intrigued me and the fact that we can manipulate that creativity not only in a personal but also in a professional way is fascinating me and that's why I chose this subject in the first place.

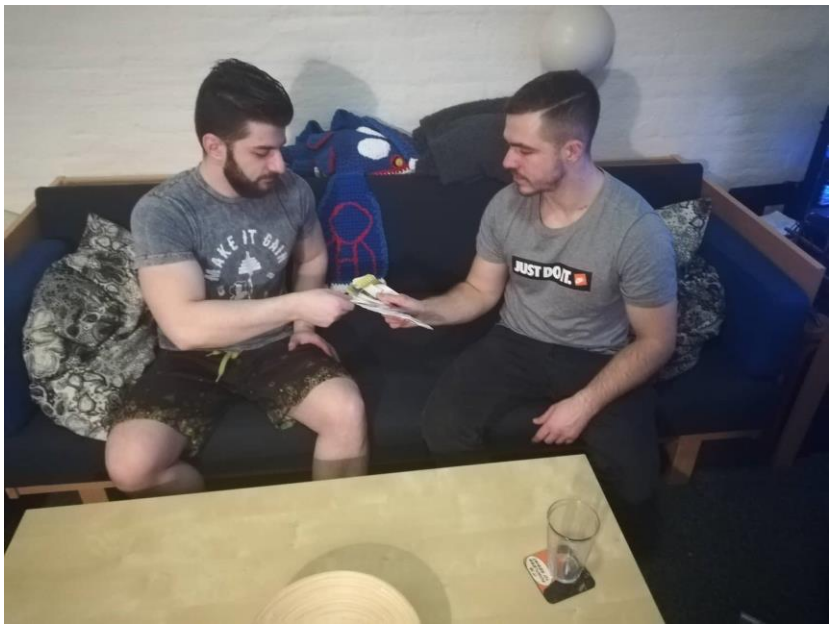
The focus which I am aiming at with this project is to increase the creativity levels and the creative productivity in Web-Developers and to improve their creative way of thinking at their work, in personal and other levels. By developing sub-focuses and later on merging them into a bigger picture I was able to determine where I want to focus with this whole process and what my final goal would be.

The idea itself with which I came up with after the above mentioned multiple processes is fairly simple. In the beginning I wanted to focus more on the environment and the surrounding objects of the Web Developers but further into my research and by involving different experts from the horizontal aspect of view and the vertical I managed to forge the focus into a proper and right direction considering the goals of my work so far. After this I was able to come up with an idea about a software which would represent a coding game for Web Developers in which they would have to "measure" their skills and compare it to the skills of their colleagues in a modernized, fun and interactive game. The game would consist of 2 players which would face against each other into the "Coding Arena" and would be given the opportunity to rapidly and as creatively as possible design a piece of code in the form of a task that the game generates for them. The developers would then have to challenge their creativity and skills in order to finish the given code task before their challenger. By winning points for different areas of creativity they would have a final score which would determine the winner after all the tasks have passed.

2. Results and possible impacts

- *Here I describe (max 3 pages) the results of my project and what possible impact it had/will have/can have*

The best way for me to formulate how my projects results came out to be would be to share on the opinion of people who were involved in the project. In my studies (Information Architecture) we do user related tests when we are finished with a system or we are about the test the system. I did a similar thing with the low fidelity prototypes which I created with my gatekeeper. The results of the paper sketch prototype were later on presented to a Web Developer and the feedback was analysed.

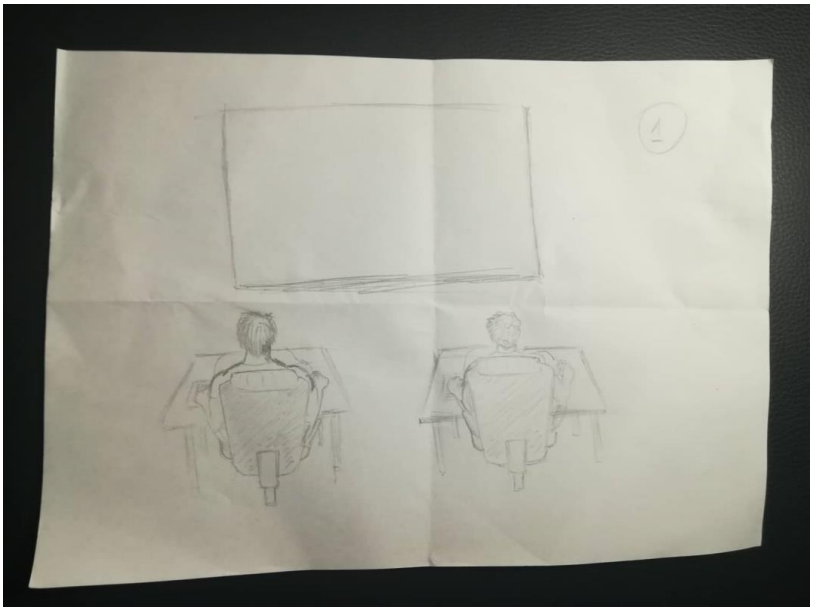


(Web Developer using Stimuli Cards in order to challenge his ideas)

Series of questions were given to the participator after we did a small exercise in order to awaken our creative way of thinking with the Stimuli Cards:

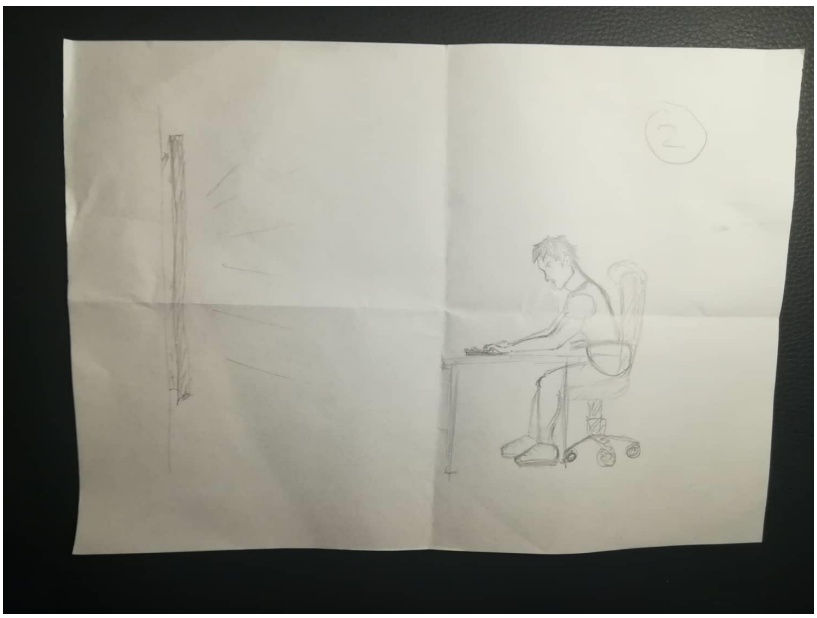
- Do you like the idea of a game-like environment in which developers would measure their professional creativity by playing?
- Would you participate in such a game if provided the opportunity at your work place?
- What negative effects do you think this would bring, if any?
- Do you think people would like to get involved into the further development of such an idea?
- Do you think this could be a new trend into the Web-Development community?

The participator responded quite positive towards the idea for a game in which he can play in order to demonstrate his skills and creativity in his work environment. The idea seemed appropriate and fun. He showed interest towards the participation in a similar game if it was to be developed in the future.



(Low-fidelity prototype img. 1, paper sketch of the game environment setting)

About the negative effects that this game could bring he expressed that the whole competitive and open environment could bring quite negative effects for some people which are not used to work while others can see what they are doing, because usually programmers and coders in general work in a private coding environment and everybody has different ways and techniques to deal with a particular coding problem. This could bring a negative atmosphere for the ones that are not winning in the game and could lead to further negative effects on them as professionals. This could be considered as a blind spot and could be prevented by implementing the solution in an online environment in which the identity of the participators is not revealed.



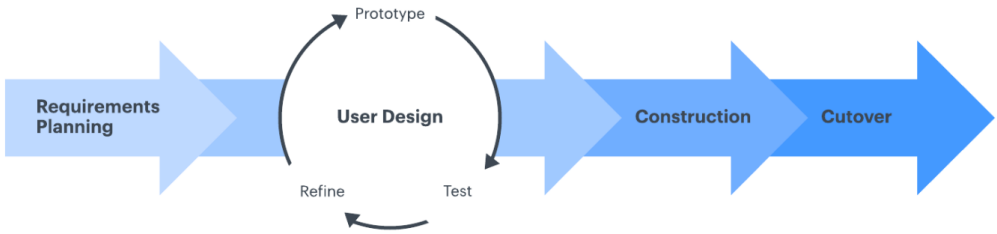
(Low-fidelity prototype img. 2, paper sketch of the game environment setting)

On the question if people would like to get involved he told me that if presented properly it could definitely grab the attention of the developers as long as their employers agree to implement such a solution in the work environment. And for the development he definitely expressed interest and had quite few ideas on how this game could be implemented in real life with a real code. He explained that this could in fact be a new trend because of the lack of similar games which are aiming to improve the professional creativity in the work environment. The idea in general seemed interesting to him and grabbed his attention definitely.
The future impact on professionals from that sphere could in fact be great if a similar system is being developed properly. There would be involved a lot of designing, development and testing though in order to achieve the desired results with that system.

3. Next step if I had more time

- *Here I give a short description (max 2 pages) about the next step(s) I would take from here if I had more time for the project >*

If I had more time for this project first of all I would have made proper user testing for the target group of my project – the Web Developers. I would have created a series of predefined questions with which I will be able to get into the mind-set of the developers and would try to understand their deeper understanding of work-related creativity. After I define more or less what they consider to be creative in their field of studied I would come up with a proper low-fidelity sketching of the software and the first stages of the interface in order to start visualizing my ideas into reality. The low-fidelity prototypes would afterwards be transformed into high-fidelity prototypes which would represent the form of an actual menu and a game interface which would be suitable for the theme of the game.
The next step in my future journey with my idea would be to set a defined level of my game which I could initiate in alfa testing. The testing would include 2 participators which would be presented with the game and would be introduced in order to get familiar with the rules of the game. After that I would create a proper setting with the proper equipment in order for the developers to feel comfortable. The testing would conclude much needed results which would later on be used as a constructive experience into the further finalization of the software. If I was to be given the opportunity to develop such a system I would have used the prototyping software development method.



(Rapid application development, Prototyping img. 3)

The "Prototyping" software development method consists of series of initial launchings of the game in which I perform different user tests through the different stages of the development of the software product.
After performing enough tests to see the impact of different implemented elements, stages, interfaces and similar, I would bring a final version which to yet again be tested within the intended target group.

(Rapid Application Development- https://www.lucidchart.com/blog/rapid-application-development-methodology)

4. This is how I prepare being creative while working on a task (T0)

- *Here I describe how I prepare myself doing creative work in terms of being more focused and more open minded*

My Creative Method

1. What is your creative spot(s)?

Creative spots for me usually are related to my creativeness in different ways. For example if I want to be more creative on a subject that is related to my profession I would be more interested in a creative environment which is connected to my computer because I am used to work with a computer as a software developer. My typical creative spot for working with a profession-related problems would be my empty and clean room with my setup - computer, mouse, keyboard and chair. If I am working on different kinds of problems and solutions I sometimes prefer to go in the park and sit on a bench or on a blanket on the grass in order to focus on my solutions in a better way and to think outside the box.

2. What time of day works better for you?

Usually I am most productive and fresh when it comes to problem solving earlier in the morning, any time before 12pm. Again depending on the type of work I have different times when it comes to being more creative towards the solutions of particular problems. My mind is completely fresh and sober early in the morning and I am able to come up with more creative solutions to my problems but in the late night I am being more productive when it comes to software development and development related problems in general. During the night I am strict and focused for some reason. The software development is related to a lot of persistence and focus when a problem is being worked upon. One of the reasons I end up working late in the night on a problem is because the problem solving is always a long process which needs to continue for an extended period of time.

3. How do you control the monkey in the mind?

As mentioned some times before I am not focusing on stopping the money in the mind but quite the opposite – I am trying to make the monkey work in my favor. By targeting the monkey in the mind I am able to use it as a small incubation period in order to develop and analyze my current ideas for a problem. The best way to prevent a problem is to try to understand it. The monkey in my mind is always going to be there and I have realized that, stopping it or ignoring it is close to impossible for me and I just got used to in some way. The only solution for me is to allow it to express itself and to give it some limitations in order for my mind to have some balance in the end. The monkey in my mind can be distracting but in the same way it can refresh my mind and can help me to relax for a brief period of time.

4. Which are your best incubation activities?

The incubation activities for me include grabbing a snack or a coffee or simply just a brief break from the problem which I am working on. The most common thing for me to do when I am overwhelmed with a problem is to take a shower or to go for a long walk in the park. By letting my mind relax and incubate my ideas for a short period of time I am being able to think of new solutions and methods which to apply to my problems. The most common incubation activities for me are – food, drinks and long walks.

5. How do you train your creativity?

Creativity training until recently was a completely unknown concept for me as a professional. Only since the beginning of the Creative Genius course I've started to realize that creativity just like the physical training can have a tremendous effect on the levels of creativity and the general results could be fascinating. Before I used to think that creativity is something that cannot be changed or manipulated in any way, I considered it a concrete factor but now I know that it can be improved and even changed in the direction we chose. Nowadays I have different ways of training my creativity, for example if I have a problem for which I have to think different and creative solutions I am using horizontal experts to help me realize the gaps in my perspective and the possible solutions which I've never even considered. Using the Card Games also benefits the creative way of thinking towards the solution of a particular problem. Vision boards are also beneficial in order to display all the aspects of the problem and its potential solutions, by displaying a lot of the aspects of a problem I am being able to think about the potential solutions at the same time instead of focusing only on one or two of them.

6. Use of creative methods/tools?

The most common tools that I used are related to the environment and the equipment that are surrounding me. The methods that I use in order to be creative are related to the environment in which I have to be creative. By using specific items I am allowing my creative flow to be initiated, when I want to be creative I always try to be in a clean and tidy environment which helps me focus on my creative state of mind.

7. What is your creative process or ritual?

My creative rituals include putting in my cozy clothes as well as setting up the right atmosphere in the room I am expected to perform any type of creative activities. Another type of ritual is listening to relaxing study music which always puts me in a mood for creative thinking. The most important ritual is having a cup of coffee besides me, which always reminds me that I am in a process of creative thinking and creative work in general.

In order for me to get a creative self-esteem I performed different creative games which built my confidence in order to perform creative tasks not only on a personal but also in a professional level, something that I was lacking before the course. Some of the methods in which I was trying to develope myself as a Creative Genius included task focusing, parallel thinking and horizontal knowledge from differnet sources and people. (Hansen S. Byrge Ch., H. (2015)

5. This is how I find the focus for my work (T1)

- *Here I describe how I find the focus of my work (problem/task to work on)*

My focus

1. Choosing a focus

In order to choose a proper focus for my burning question I have to think in a larger scale and to analyze the bigger picture that sometimes can be out of our minds because of the invisible box that is our personal consciousness. In the next section I will present some of the focuses that would be surrounding my topic:

- What equipment would I include in the special places in order to boost the developers creativity?
- What atmosphere should be created in order to improve the creativity levels and flows of the developers after they have finished their daily creativity boosting?
- In what manner would the creativity increasing would benefit the developers themselves?
- Could there be a way to measure whether there is improvement in the developers after they have boosted their creativity with the variety of games and equipment?

2. What is the core of the focus?

The one common idea that the above mentioned focuses reveal is the pattern in which my burning questions solving could be represented. In order to establish different focuses which will support my burning question solving I have to demonstrate their different aspects. The main aspect of my focus would be around the implementation and the creative state of the developers that would be included in the performing of the project. The general idea behind my focus is to demonstrate an increase in the creativity levels and creative thinking productivity of the developers of websites and web-related systems which could be related to environment, atmosphere and specially designed games and equipment for the purpose.
In order for me to gain a focus a series of questions had to be asked and afterwards answered by non other than me personally. In this process I involved my past experience and my new experience in the sphere of creativity. Some of the methods I included in order to identify my focus in a better way were – writing down my focuses, key words for different focus grous, examination of my focuses and an overall aim for all of them.
(http://idea-camp.eu/wp-content/uploads/2013/07/4-creative-techniques-24092008.pdf)

6. This is how I look for blind spots (T2)

- *Here I describe how I look for blind spots to avoid being paralysed by old understandings and patters of thinking about the focus I chose for my project.*

Blind spots

A main blind spot in my core focus could be the implementation restrictions of the whole idea and the big amount of resources that would have to be invested into the research, design and actual prototyping of the ideas. Those processes would require the knowledge of many vertical experts if to be implemented in a real life project like: designers, engineers, software developers, game developers, system designers, game designers, construction architects etc.
The vertical expertise is everything that could be connected to the implementation of ideas and actual objectives related to the focus and the finalization of this project.
One of the first blind spots that a fellow student from the course identified was one related with the design of the so called "creative space" rooms that I planned to implement as a way to boost the creativity of the developers and to increase their professional and personal potential as an employee and a person. The blind spot's core is related to the designing of the space and atmosphere in which the developers would be spending their creative time and mainly around the big amount of funds that would be needed in order to implement some of the actual ideas not only the prototyping. By his opinion there would be work related not only with the finding of suitable expertise and handling of the technical manners but also a big funding issues related with the space which would have to be designed and equipped with the technology and items in order to realize the idea for the creative atmosphere.
Another identifications for a blind spots made by a fellow classmate was that there could already exist place like this which would strongly remind the Developers of a relaxing and non-working atmosphere instead of provoking their minds to be more creative in relation to their professional attitude. If for example a software engineered game was presented to the Developers as an opportunity for them to boost their creativity levels by playing it this could remind them of an internet café and distract them from their actual work-related focus. By distracting them with such an element it can have a negative effects on their creativity levels instead of having a positive one. This blind spot is related to the comfort zones of the Developers and their old habits. The point of these objects, physical and software games would be to increase not only the creativity levels of the Developers but to help them activate their creative mind in a faster way in order to be more productive at their work environment by exercising their creative flow in a closed environment.
Major vertical experts as above mentioned for my case would be construction architects, designers, system designers, game developers, engineers and more. I have communicated with a game developer and one of the blind spots that he has identified for me is related to the implementation of my so called creative software game. He pointed out that the development of such a software would require the work of many people and would not be able to be launched as fast as I thought it would. Additionally

as a blind spot he revealed that the software would have to be implemented for an online environment in order for the different employees to be able to play at the same time against each other. This would additionally create a major complication for the technical part of the development of that solution. The focus that we identified with this expert is that we would have to have a clear idea of what we want to develop as a software and to define the tools which we would work with in order to accomplish our goals. The focus is related to the finished implemented software game and the time in which this would be performed is of big value in order for the software to be finished and ready for testing.
In order to challenge me and the vertical expert's thinking we used a creativity game which we performed during the course of the Creative Genius. We aligned random items in front of us and each one of us had to pick up an item from the ground and had to explain a way in which this item could have been used in order to think of a creativity game that would benefit the developers in a similar to the way that a software game would have in order to boost their professional creativity levels and the speed in which they activate their creative flow.

In order for me to identify blind spots I used different perspectives from different sources so I can see more clearly how I can identify some of the blind spots themselves. One of the main blind spots that I was able to identify was a blindspot related to my time management and the time I spend on different creative tasks. The identification of the time related blind spot was a huge improvement for me because I realised that in order for my own benefit to be as productive as possible I needed to manage my time limints considering the project scale and the differnet aspects involved in it.
(Zampetakis, Bouranta and Moustakis(2010))

7. This is how I work with ideation (T3)

Here I describe how I work with ideation in order to involve more knowledge in my work.

Using more knowledge through IDEATION

In order to formulate an IDEATION process a collaboration between me and two Creative Genius fellows has been performed in which idea generation about my focus were created. The main focus for this process is how to increase the creativity flow and levels of Web Developers through games and atmosphere in a so called "creative space rooms". From the 40 ideas only 10 have been generated by me and the other 30 were generated by the fellow students from the Creative Genius course. After the generation of the ideas related to the focus a categorization was made in order to regroup the ideas and filter 3 original ideas from 3 different categories.

1. Develop a software game including random words in which the developer would have to answer as fast as possible for the antonym of that word in order to collect more points compared to his opponent. **(software)**
2. Purchase and place a snooker/billiard table in the creative environment. **(physical)**
3. Purchase and position a bouncing castle for adults in the environment. **(physical)**
4. Place gaming computers. **(combined)**
5. Place old fashioned Pacman electronic games in the room.
6. Install a bowling hall in the room. **(physical)**
7. Design and develop paint shooting room in the facility. **(physical)**
8. Construct slides in the place of elevators which could be used by the developers. **(physical)**
9. Install different in size and color couches. **(physical)**
10. Install innovative chairs around the room. **(physical)**
11. Purchase and install a PlayStation platform. **(software)**
12. Place a darts on the wall. **(physical)**
13. Design and positon an aquarium somewhere in the room. **(physical)**
14. Create a room filled with bouncing balls. **(physical)**
15. Install fireman's poles instead of stairs in the facility. **(physical)**
16. Build small castles with foam guns in them around the facility. **(physical)**
17. Install poker tables around the room. **(physical)**
18. Design and develop a bar. **(physical)**

19. Position big TV's all around the creative rooms. **(software)**
20. Construct a gym in the facility. **(physical)**
21. Develop an open source platform for fast coding challenges in the room connected to a computer and a screen for all to see. **(software)**
22. Install a wall screen (projector) with a Kahoot! (educational quiz website) connected to the screen and an automatic voice-recognition software for the answers of the developers. **(software)**
23. Install a joke machine in which if a recycled bottle is placed an automated joke is being broadcasted. **(combined)**
24. Design puzzle chairs and other furniture which have to be assembled by the developers in order for them to sit or use them. **(physical)**
25. Design and develop image memorizing games displayed on a screen on the wall in which the developers would have to memorize an image and repeat the sequence of images they have seen being displayed. **(software)**
26. Install a climbing rope on the walls. **(physical)**
27. Install a petting zoo in the facility. **(physical)**
28. Purchase an expresso machine in the room. **(physical)**
29. Design and install a climbing wall in the facility. **(physical)**
30. Install a movie theater in the creative place. **(software)**
31. Install interactive puzzles in card games. **(physical)**
32. Purchase a Monopoli game. **(physical)**
33. Purchase water guns. **(physical)**
34. Purchase Rubic cubes. **(physical)**
35. Purchase Dungeons and Dragons card games. **(physical)**
36. Design and install a sauna. **(physical)**
37. Design and develop a small swimming pool. **(physical)**
38. Install tablets on the walls which run small creativity related games. **(combined)**
39. Install basketball baskets and purchase balls. **(physical)**
40. Purchase Frisbees. **(physical)**

How to increase the productivity levels and the speed in which Web Developers activate their creative mind and flow through different physical and software games, as well as tools, equipment and atmosphere that could be created around them to enhance the above mentioned aspects of their professional and personal creativity.
In order to answer this question a selection of 3 categories has to be made, and the main 3 categories that have been generated are: **physical, software** and **combined.**
The next step is to identify 3 original ideas from the 3 different categories. These ideas are:

- Develop an open source platform for fast coding challenges in the room connected to a computer and a screen for all to see. **(software)**
- Design puzzle chairs and other furniture which have to be assembled by the developers in order for them to sit or use them. **(physical)**
- Install tablets on the walls which run small creativity related games. **(combined)**

In order for me to challenge the defined categories and make them more specific I used the Sandra Dingly method in which I presented the categories to my fellow students and they had each 5 minutes to come up with different categorization than the one that I made. By doing that I was able to challenge my own understanding of the problem and at the same time the solution which comes with it. By listening to the feedback of the participants of the process we managed to modify the categories that were previously generated. The new categories we came up with are: **distraction (incubation), mentally challenging** and **innovative.**

The educational background of the participants in this process of IDEATION is Culture Communication and Globalization and Marketing and Management with Tourism profile.

Some of the techniques that I aquired for the IDEATION part I got inspired from a model which is described by Ditte Mortensen in her " Three Ideation Methods to Enhance Your Innovative Thinking". By asking some questions related to our ideas we could get a better understanding of the ideas and the actual goals which our ideas bring to light after we express them. In order to have a better understanding of our ideas we have to ask the quesitons:

- Can we detect properly our idea ?
- Can we learn something from our idea ?
- Can we invent something related to that idea ?

By asking these questions related to my ideas I was able to determine i na better way the flow of the IDEATION process and to apply some of the techniques that Ditte explains on her page.
(Ditte Mortensen (2018))

8. This is how I used horizontal knowledge in my work (T4)

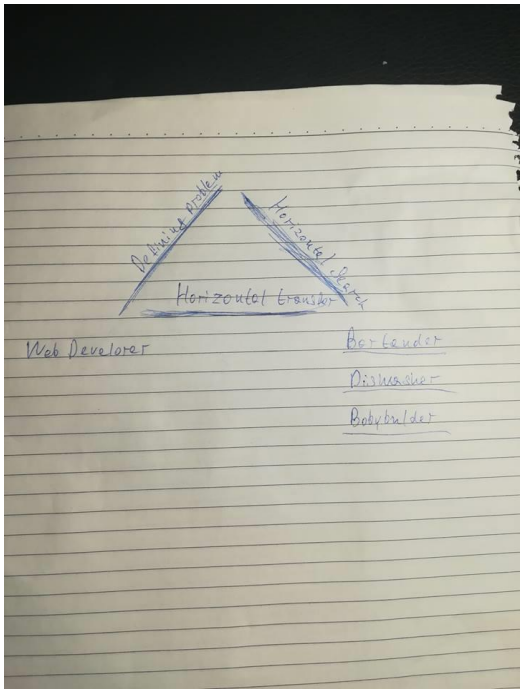
Here I describe how I used horizontal knowledge in my work by working with horisontal experts

Working with horizontal experts

The previously selected 3 original ideas which were categorized in 3 different categories are the following:

41. Develop an open source platform for fast coding challenges in the room connected to a computer and a screen for all to see. **distraction (incubation)**
42. Design puzzle chairs and other furniture which have to be assembled by the developers in order for them to sit or use them. **mentally challenging**
43. Install tablets on the walls which run small creativity related games. **innovative**

In order for these ideas to become real life concepts different methods and processes could be used to fulfill the requirements that is the implementation itself. The tasks which are connected to the above mentioned original ideas should all describe a way in which these ideas would be performed in an actual concept. The main task that connects them all is how we can install all these items and software in order to create a perfect creative environment for the developers that are to use them?
In order to identify the horizontal experts I used the Horizontal Expert Triangle model. By highlighting the values of my focus I was able to visualize the potential horizontal experts in my case and include some of them in to the process of developing my concepts.



(Horizontal Expert Triangle)

1. **Bartender, barber, sushi maker, dish washer and a house cleaner. - <u>distraction (incubation)</u>**
2. **Pizza maker, busser, pie maker, baker and a driver. – <u>mentally challenging</u>**
3. **Restaurant owner, bodybuilder, doctor, nurse and a lumberjack. - <u>innovative</u>**

One of the methods that was used in order to challenge and at the same time design suitable and different concepts were the Stimuli Cards. On every each of the horizontal experts were given to pick a random card from the Stimuli Cards and according to that do develop and concept related to the original ideas which were generated previously.

Concept 1

The first expert draw a Person card which had a bounty hunter as a person. Immediately he elaborated on the first idea by thinking of a concept which included the persuasion method of the bounty related into the open source platform for the open coding challenge. The concept that he came up with included a game-like software which would be connected to a computer and every each time the developer would be faster in the coding task than his opponent colleague, the game would reward him some sort of bounty which would inspire his inner hunter desire to be more creative in the coding itself and into the finishing of the task faster than his colleague opponent for the game.

Concept 2

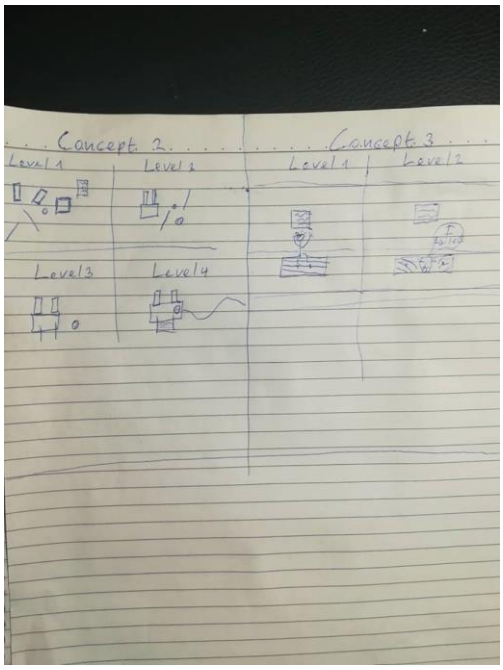
The second expert draw a picture Stimuli Card in which the first image was an electric plug. He came up with the concept of a puzzle chair which should be assembled together not only for the purpose of sitting after it has been assembled but also for the purpose of charging different devices into it after it has been completely finished. This

would create the feeling of completion and satisfaction in the developer that has to perform the task in order for him to have more motivation to be creative into the puzzle chair assembly.

Concept 3

The first expert draw another card which was a word card from the Stimuli Card desk. The word was “trap”. He came up with the idea of a small trap door which would be installed under the developer’s feet when he is playing the creative game on the tablet. Every time that the developer makes a mistake in the creative tablet game or does not solve the game in time, the small trap door underneath him would open and he would fall under the ground for a short period of time as a punishment for not being able to be faster in his creative flow.

In order for me to elaborate on the concepts that we came up with the horizontal experts I illustrated the ideas on a paper prototype. By displaying the ideas on a simple, yet efficient, prototype I was able to get more insights on the whole implementation of the concept and what potential advantages and disadvantages in could bring when possibly implemented.



(Paper Prototyping, concept 2 & 3)

The horizontal experts that were participating in my concept creation via the Prototyping and the Stimuli Cards were: **bartender, dishwasher and bodybuilder.**

In order for me to gain horizontal knowledge which involved different epxerts at some point I had to define different aspects of the process itself. Some of the processes included:

- Establishing a context of discussion
- Consideration of the relationship with the participants
- Method of conceptualizing
- Visual aspects

- Textual aspects
- Verbal aspects

By taking into considerations these elements in my horizontal knowledge extracting I was able to form a pattern in which to follow my progression with the horizontal experts I was working with.
(N. Ford and D. Sterman(1997))

9. This is how I persuade gatekeepers to involve in the project (T5)

Here I describe how I persuade important gatekeepers to involve in my project to make it more possible to achieve an impact with my work

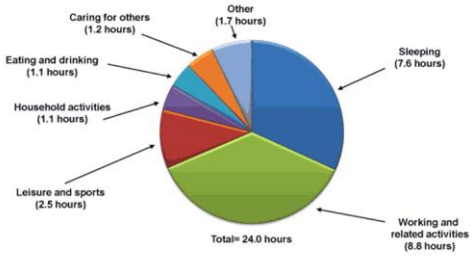
Persuading important Gatekeepers

The first concept would be the best suitable idea for an implementation because of the actual nature of the concept itself. The concept is fairly easy to understand and the possibilities for the prototyping and the implementation are a lot. The idea behind the concept is the creation of a game-like software which would be in an open source environment and would give the opportunity to the developers to challenge their colleagues into gathering "bounty points" in the game that would be developed. The challenges would be to implement an open source, online environment which would support at least 2 players who would face each other in a profession related visual assignments on their screens.
An important reasons for why I would like to persuade a company to develop my idea into a prototype would be mainly the funds and the expert work needed to be putted in order to make my idea/concept into a real live prototype and later on into a functioning software environment. An important and very useful Gatekeeper would be "Kmd A/S", as one of the most progressive and big local software companies Kmd would be able to provide me with the guidance and expertise level which I need in order to put my ideas, concepts and prototypes in reality and further development. As a software developing company Kmd is a perfect Gatekeeper for this idea because they are working with software systems every day and they could easily perform a lot of the tasks that I would like to develop in the development of the software.

Have you thought about the stress levels of your employees ?

(slide 1)

Did you know that the human brain can function in a working environment adequately only 8.8 hours ?



(slide 2)

It has been proven that small breaks and “fun rooms” could improve the employees professional creativity and mental capability !

(slide 3)

What if I told you we could develop a software which would improve the professional creativity of your employees ?

(slide 4)

The Coding Arena is a special quiz-like game software concept in which your Developers would combat each other in order to gain points and advance their creativity at their work place.

(slide 5)

Contact me for further information and details over the project's vision and implementation strategy !

(slide 6)

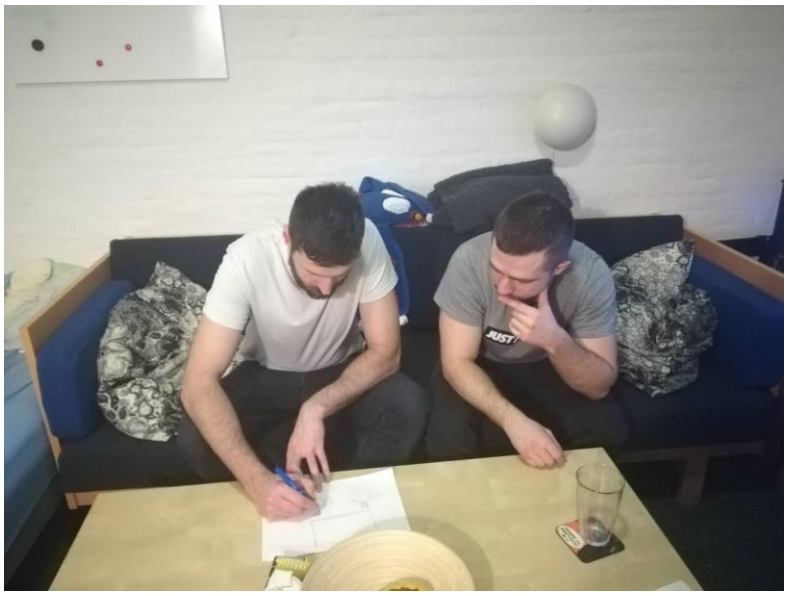
In order to test whether the presentation would have any effects I performed a persuasion test on a similar Gatekeeper which was related to the professional sphere of Kmd employees. The results were fairly positive and I managed to attract his curiosity on the topic. The presentation is only a brief introduction and it slightly reveals the idea behind the whole concept which gave me opportunity to cover the main values of the idea and by that to attract the watcher's curiosity completely on the subject, which could most likely lead to a further communication and collaboration between me and the actual Gatekeeper.
(B. Chignell (2018))

10. This is how I prototype with gatekeepers (T6)

Here I describe how I prototype with important gatekeepers in my project to make it more possible to achieve an impact with my work

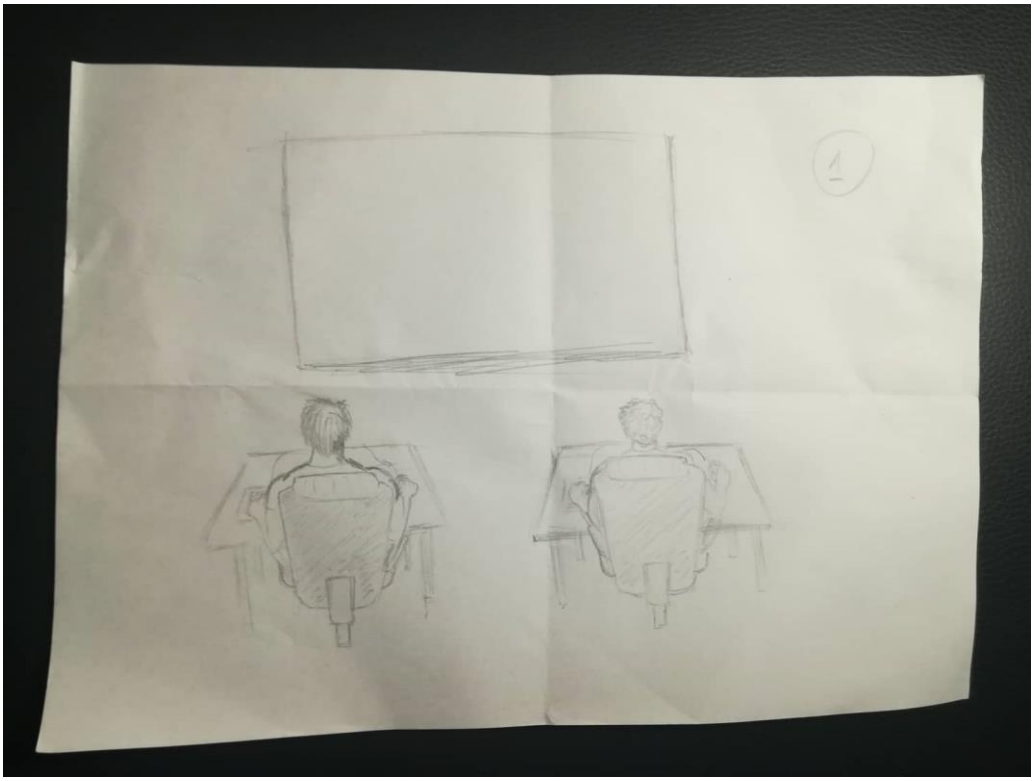
Prototyping together with a Gatekeeper

For a gatekeeper I chose a software developer who would have the same background of professional experience as the developers at Kmd, this was my best option considering the time limit and the short amount of time for development itself, in order to illustrate in reality the best and most original concepts from the previous chapter which was chosen as a final version for the prototyping. We started by brainstorming on how it can be implemented in reality after I explained to him my ideas and I finished my presentation. The idea for a prototype we came up with is a game spot in the potential place for creative thinking, the creative space. The concept basically consists of a game-like open source environment for 2 developers from the staff of the company which will face their professional creativity skills and speed in a game for coding. The game will set the scene of an Arena of coding. The rules are simple, whoever implements a generated by the game coding task faster, wins the round. The developers would not only need to be as creative as possible about what they are implementing as a code but they would also need to be as fast as possible in order to defeat their opponent with the particular task that the game has generated for them.



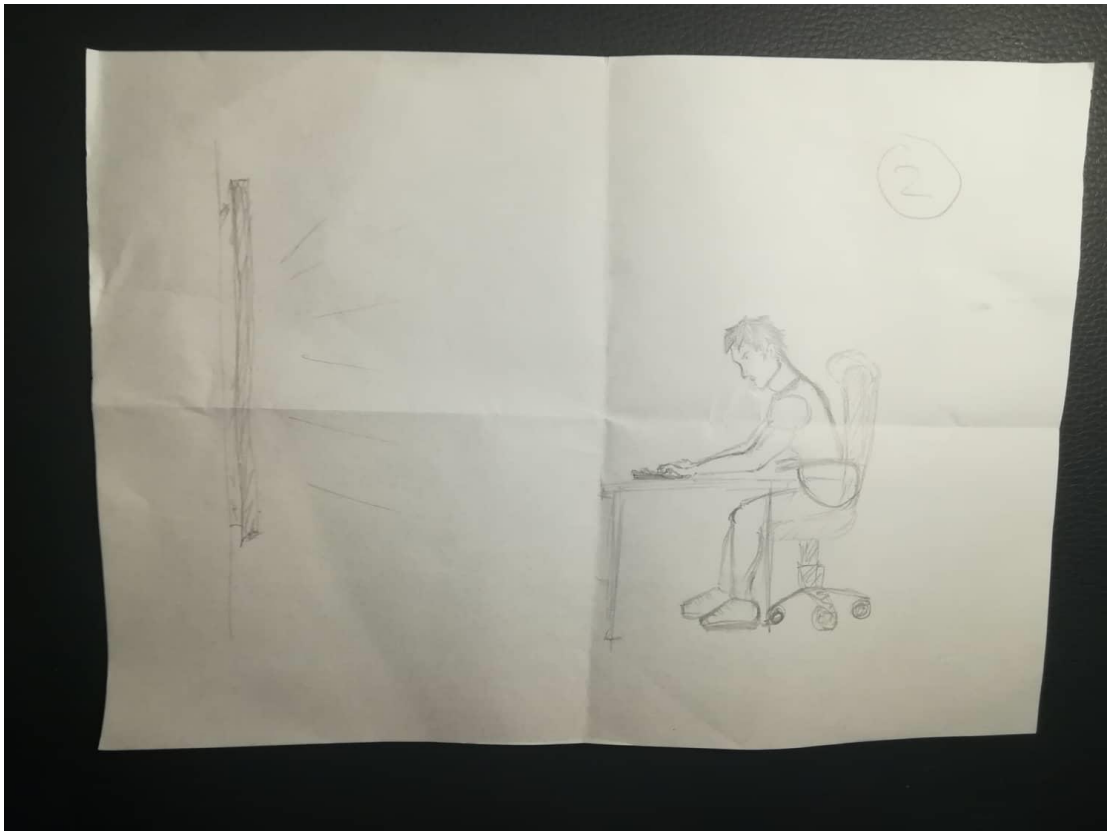
(Prototyping with a Gatekeeper on the concept)

We initiated the process as mentioned above by brainstorming on ways to implement physically the equipment and positioning of all the elements in that setting for that "Creative Coding Arena game".
The first thing we came to a conclusion with was that the developers that would be engaged into the game would have to sit in different spaces with different equipment attached to their main screen on which they would perform their given tasks. Every each developer would have the same setting in order for them to feel comfortable and perform adequately. The main screen would display both of their progression in order for them to notice how far are they compared to their opponent for the battle and for others around to be able to see the progression of the developers involved.



(Prototyping sketch 1, Creative Coding Arena game setting)

As you can see on the image above we came up with a setting which would display both of the developers visually their progress, aligned on the same spot on different desks. This is the physical setting from the backside of the prototype.



(Prototyping sketch 2, Creative Coding Arena game setting)

In this sketch the Gatekeeper and I designed a paper version prototype of the same setting but from a profile angle of view. This angle provides us with a better understanding and resemblance of the classical gaming positing of the body of a person. A lot of the developers are familiar with game settings and gaming equipment so this would not be a completely new experience for them in general.

(Prototyping sketch 3, Creative Coding Arena game software logic design)

In the final stage of the prototyping session the gatekeeper implemented a very simple pattern of coding possibility for the software logic of the Creative Coding Arena game that we prototyped earlier in our meeting. We came to the conclusion that the software part of the game would not be such a big challenge because there is no need for a very complicated logic behind the code of the game and most of the graphics will be static which would save a lot of time for the designers.
The process of prototyping went smooth and we came to some very positive conclusions about the potential outcome of a setting and a software with the intentions of increasing the creative thinking and creative activation speed of the developers in a software company. The whole idea which I presented to the gatekeeper intrigued him and woke up his curiosity, as intended. We discussed that the idea is original and absolutely manageable for prototyping and even for a full development in the near future.
(C. Change and M. Chen (2001))

11. A Theory Explaining My Creativity

(Assignment D+E+T0)

In this chapter I develop a theory explaining my creativity. This includes an analysis of my own development towards becoming a creative genius. My theory of my own creativity is primary based on data from assignment D and E which can be found in the appendix.

The work from assignment D, E and T0 is analysed and theoretically reflected in order to understand how my creativity works and how I have developed as a creative genius throughout attending the Creative Genius semester. In this chapter I develop a conceptual model that explains how my creativity functions when I work individually, in groups, in specific environments, etc. Finally, I present a strategy including practical examples for how I intend to continue my development towards becoming a creative genius in the future. The following themes is included in the theory:

·How do I keep open minded? - What barriers do I face?
·How do I focus my work? - What barriers do I face?
·How do I arrange the right circumstances for incubation of my ideas?
·How do I collaborate with others in a way that fits my creative process?
·Where and when do I get ideas? – Where is my creative spot?

My theory explaining my creativity and how to continue the development towards a Creative Genius is the described in the following.

In order to keep an open minded thinking I used different methods and techniques to realize my visions and ideas. In order to improve my creativity levels in a short term plan I used techniques which included small amounts of daily exercises which included Stimuli Card games, different open exercises and more. When working in a creative environment I tried to communicate as much as possible with my colleagues and friends in order to identify the potential creative breaks that could have improved me as a creative person and professional.
(Dennis R. Brophy 1998 p. 205)

I fucused my work on many different levels but mainly I focused my work on my burning question and the best and most productive way in which to solve the question by adding adequatly data from vertical as well as horizontal experts into my project. The focus I worked with was entirely surrounded by the idea of how I can improve correctly and in the most efficient way the creativity levels of Web Developers and how I can implement a system or an environment in which they can develope themselves as professionals.
(Beth et al (2010))

The incubation process of my ideas was fairly simple, every time I had in idea in my head I not only let it incubate and develop but I excluded it from my mind entirely. The incubation process usually included – taking a bath, going to the gym, walking in the park or simply playing computer games at home.

(C. Moreira (2012))

In order for me to get new ideas and new knowledge I performed sessions with horizontal experts which brought into my attention many different aspects of ideas which I did not have in mind previously. By using some games learned through the course of the Creative Genius I was able to challenge the knowledge of my horizontal experts and provoke them into helping me with their specific knowledge in the spheres of their studies and work.
(N. Ford and D. Sterman(1997))

My creative spots are usually in open environments like parks, swimming pools and beautiful places in general. The best atmosphere for my idea flow is usually somewhere in the nature where I can connect with my inner-self and to be able to have a clear vision on my creative ideas.

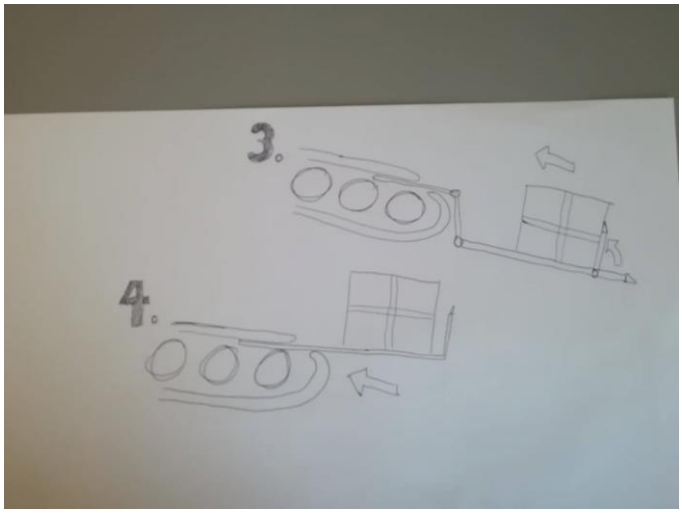
12. Creative Methods and Creative Processes (Assignment H)

In this chapter I reflect on how I have used creative methods and creative processes throughout the semester. It is primary based on a creativity process that I took part in designing, preparing and performing (assignment H). My reflections connect relevant literature, theory and practical experience.

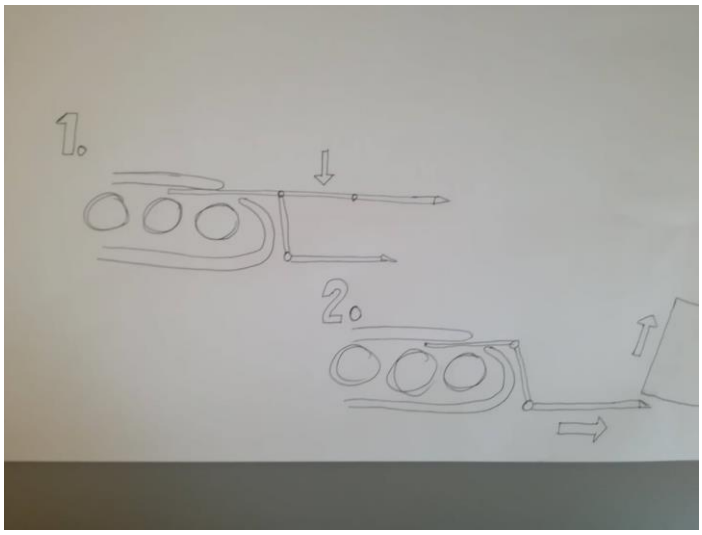
My theoretical reflections on creative methods and processes are described in the following.

Original ideas and development process

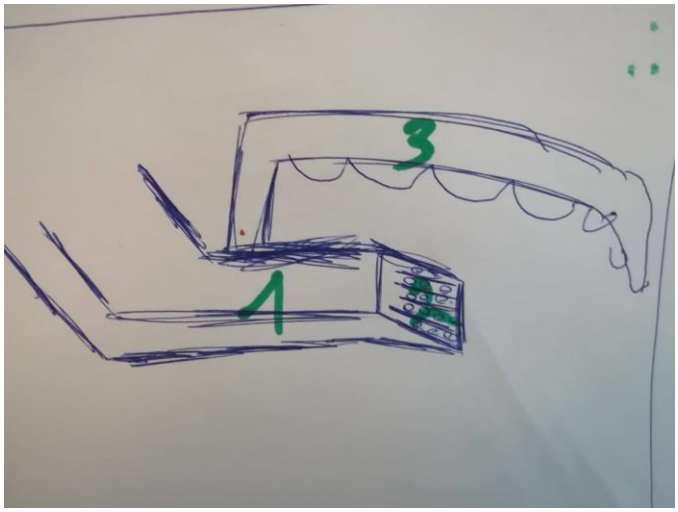
In the first day we were presented with the problem which was related with the Snoot and how workers had difficulties to work with the device even after it has been developed with the purpose of assisting them. The purpose of this presentation was to give us an idea of what we have to improve in the Snoot in order for workers to benefit in their daily jobs.
Before the actual process of developing ideas even began we had to perform a variety of games in order to awake our creative flow and to set us in the "mood" for the problem solving. Some of the games included new and personally by us developed exercises which would activate our creative flow and develop our creative mind.
A very useful method we used was the Sandra Dingly method in which horizontal experts from the class sat around me and gave me different perspectives towards ideas I have presented to them about the Snoot device head. By that I managed to get some outside professional knowledge on how my solution could be improved. They also reflected on some of my blind points towards the final solution for the device.



(Prototype of Snoot head extension 1)



(Prototype of Snoot head extension 2)



(Prototype of Snoot head extension 3)

After these processes I came up with a low-fidelity prototype which was illustrated onto papers sketches, these sketches led to the development of an actual cardboard prototype in final versions of my process.

Creative process plan

Creative Process Plan (please check for errors)

Wednesday

09.00: Creativity Training on red carpet (first 1-2 energizer-like followed by 1-2 product improvement).

09.20: Individual production of ideas using stimuli.

10.00: Break

10.15: Training (first 1-2 energizer-like followed by 1-2 product improvement).

10.30: Producing of more ideas in pairs using stimuli.

11.00: Select 3 ideas individually + further development of these ideas individually

11.30: Early lunch

12.00: Further development of ideas in groups (one group using sandra dingle method and the other group using Ideo method).

13.00: Incubation break

13.30: Presenting ideas to all + common guiding/selection in plenum (not selecting the same ideas).

14.00: Prototyping on paper

14.30: Physical prototyping + descriptions

15.00: Lets call it a day.

Thursday

09.00: Challenge all ideas using provocations and thoughts that appeared since yesterday.

09.30: Develop persuasion + preparing presentation using video, verbal presentation, tables, prototypes, role plays, etc.

11.00: Presentation for Anders.

Some of the methods in order to activate my creative way of thinking I used were inspired from different games like the Person training cards and others which were included in my curriculom. And other techniques I developed on my own during that same process.
(Hansen S. Byrge C. (2014))

13. My Creativity Training and Facilitation of others (Assignment F and G)

In this chapter I reflect on how I have designed and performed my own creativity training programs and how I have designed and facilitated programs for others (assignment F and G). My reflections connect relevant literature, theory and practical experience.

My theoretical reflections on Creativity Training and Facilitation of others are described in the following.

Continuation of creativity training

1. Card game training – the training involves a simple problem that is being presented by my partner for the training, it includes a small burning question that he generates on the spot. After the problem has been developed by him I draw a card from the person (or any other cards) and try to think about a solution for the problem based on the card I drew from the deck. After this is being done I present my final solution to the burning question to my partner and we develop a conclusion whether the question is being answered or not.
2. Problem based situations – the problem based situations training includes a problem in our daily life that is being presented by my partner. In this case I should generate a simple yet efficient way to solve the problem using only my creativity as a tool to do so.
3. Burning question analyzations – the partner is presenting a burning question and in this scenario I am taking the role of a horizontal expert and he is taking the role of Sara Dingly. After the question is being presented my partner gets an empty sheet of paper and a pen and I start analyzing his specific question by bringing knowledge from my field of studies in order to give him ideas about the solution. He writes down the most useful information that he thinks he got and uses it to form a solution for the problem.

14. My Final Reflections on my journey towards becoming a Creative Genius

In this chapter I reflect my understanding of working as a Creative Genius including how I have developed myself and my way of operating as a professional during the Creative Genius Semester. In my reflections I consider the following questions?

- *How is it different to operate as a Creative Genius versus a Professional knowledge worker?*
- *What will I gain from operating as a Creative Genius?*
- *What is the biggest barrier for me to operate as a Creative Genius in the future?*

To operate as a Creative Genius is different from working as a professional in a specific sphere in terms of understanding of basic things about creativity. In the beginning I was quite sceptical about the course and did not find it so useful for my persona professional uses. As time passed and the course progressed I started realising that the core of the Creative Genius is not related so much with how much we can improve in being creative towards quantity of creativity but rather in how fast can we personally activate that creative state of mind in order to progress more creatively toward specific problems, whether they are related to the personal of the professional aspect of our life.

I will gain a lot for me personally as a Creative Genius because I understood the main values of being one. As mentioned above now I can recognize the states of mind in which I am towards the potential creativity way of thinking. In professional aspect I could definitely benefit greatly from that course because I have started to understand how I can break the regulations and boundaries of my profession and to challenge my way of thinking into a different aspect that was unknown for me in the past. As a professional in the sphere of software designing and development my personal gains from the Creative Genius course would be that I would manage to think of new and hopefully more creative ways in which I could provoke the people I am working with and the users that are involved to activate their creative potential by demonstrating them with different theories and techniques that I developed through the period of time in the course.

The biggest barrier for me to operate as a Creative Genius would maybe be the way in which I have to persuade people that have zero knowledge about the sphere of the Creative Genius to participate in main activities from the course that I learned. Although I have the vision for the potential increasing of the creative way of thinking and the speed in which I can achieve that, regular people would not be able to see my point of view. In I feel that this would me my major barrier which I would have to deal with after I start to involve the knowledge I gained from this course into my professional world.

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16. Appendix

Here I enclose relevant appendixes.

My creative method

My question of choice for the subject would be related to the creativity leves of Web Developers and how it can be improved. The creativity in a work environment like this is a subject that has always interested me and by that I decided to go with this topic. Creativity is much needed when speaking about ways and methods in which to observe, test and monitor behavior related to the professional creativity of Web Developers in their daily enrironment.

Question information

1. The perfect time for me is when I am usually fresh and well rested. Although this is not the case for every aspect of my work, sometimes staying up all night and thinking about a problem helps me develop momentum and solving that particular problem. The space is usually a clean and refreshed room with no distracting objects around me.
2. During the day I have a fresh flow of thoughts but in the nigh time I have as mentioned before a strange momentum which keeps me charging at the problem in an attempt to solve as more productive as possible.
3. The factor of the monkey mind is overcome by shifting the monkey thinking and the way of the thoughts that it is involving. By letting the monkey mind express itself and demonstrate what kind of thoughts I could be thinking instead of the real problem I am letting those emotions and thoughts “flow” and go away. After the monkey mind has been settled I focus completely again on the main task and proceed with the same mindset. The monkey mind can be a negative but also a positive thing depending on how I use it.
4. Thinking out of the box is a method that I always keep in mind. Besides the regular method of rational thinking I sometime try to think in the most different and abstract way possible. Sometimes the most creative thoughts come from a completely random and out of the order idea. I try to develop those ideas connected to a totally different aspect of the problem itself so I can look at the problem from a different angle.
5. I often go an exercise (gym, kickboxing, jogging) to open my mind towards ideas. By exercising the body sets my mind into a direction and allows me to focus a bit more on the real problem, instead of having to deal with my monkey mind thoughts. By performing a particular activity I isolate myself into a particular pattern of my everyday life, which helps me focus only on the main problem that I have. This is not always the case and I get

distracted more. The incubation period can be either positive or negative depending on the activity and the depth of the problem.

6. Gathering random ideas especially with a group of people is a perfect way of manifesting the way of thinking and to boost my flow. Using brainstorming as a way to get in touch with my genius usually, especially when in a group of people.
7. Sitting in a quiet place surrounded by nature is also a nice method of relaxation and on boosting creativity.
8. Researching through internet sources is a great way of getting more insights on how to think and how to approach a problem. In a lot of the cases a prototype of a similar idea could be out there.

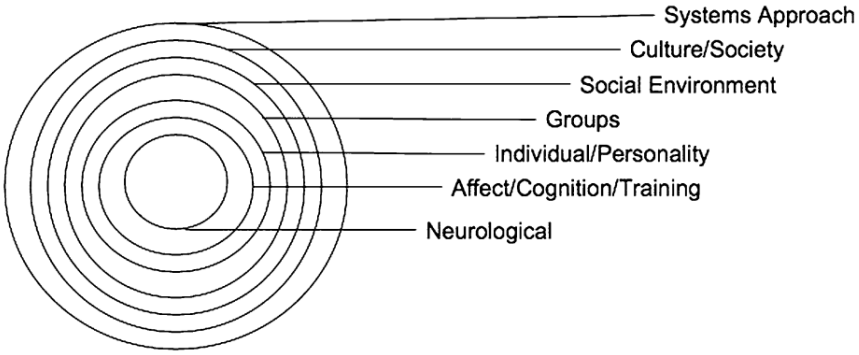
Description

- My burning question is related to a very broad and specific subject which is yet to be discovered by science and to be tested out. The different ways of analyzing a problem like that would have to include new and original ways of gathering data about a group of individuals while performing different tasks.
- The burning question for me is could there be a way to increase the professional creativity in web developers at their working environment by involving them into software games and creating the right creative environment for them?
- The creative way to approach this would be to do a lot of demonstrations in which individuals would be performing different tasks and assignments. There are different ways to do that and one of the classical would be to do online user interviews, which would bring more statistical data on the table to work with. The other method includes performing live interviews with the group of individuals which are participating of the test itself.
- Using in a method which can be used for the development of new ideas related to my burning question could be an online research about the prototypes that already exist in relation to the testing of subject during user experience and usability interviews.
- My reflections upon the creative ways of thinking about my specific questions are strongly related to using a research method and a lot of online sources of information because of the field of the question.
- The creative method I developed includes using my monkey mind as my friend instead of my enemy, distracting myself and at the same time putting a pattern to my thinking by performing some sort of exercise.

Theoretical assignment 1

1. **Why does my personal creative ambition, creative self-efficacy, and creative production differ over time, place, context and content?**

In order to answer this question we would have to go deeper into the whole meaning of being a creative being and the surroundings that are influencing us to be one. There are many different factors which would be improving or decreasing our creativity, in order for us to understand those factors we would have to analyze them into more detail and highlight some of the main aspects of them.
According to Beth et al (2010) "Creativity" (p. 571) there are different levels in which creativity can be manifested into a particular individual based on different factors that surround them.



(Fig. 1 - Beth et al (2010) "Creativity" (p. 571)

The personal creativity usually varies from a person to person. The measurement of personal creativity consists of experimental paradigms and questionnaires related to the topic. Some of the conclusions are that creativity is domain specific and not everything related to personal creativity can be measured and analyzed in the same manner.
Another aspect of being creative is the mood in which the person is when he/she is performing any creative related activities. Some studies indicate that the mood of a person when performing those activities can be a factor for the productivity of the tasks but unfortunately not for the quality. Being in a better mood when working on a creative task can make you more productive and more efficient but won't make you better in any way related to the levels of your personal creativity.

2. How can I enhance my personal creativity on a long-term and a short-term perspective?

One way to enhance my personal creativity or a long-term or a short-term would be to use small yet effective rewards. A reward that would include a rest or some sort of food or perhaps even coffee. It doesn't matter if the reward is small or big as long as it is there I would be more motivated to continue in the right direction of my creative process after it happens. A study shows that in some cases college students respond positive to a reward system when working in a creative environment. *(Dennis R. Brophy 1998 p. 205*).

In my project I would definitely be using the reward system because it is sometimes like an incubation period for my creative thinking flow. If I get stuck on a problem I would reward myself after a period of time or after a completed task. Getting food is also a common strategy in order to incubate my further ideas and to get my creative momentum in terms of quality rather than speed.

Playing various games in order to awake my creative mind would also benefit in my short-term progress. Using card games to come up with new crazy ideas to solve a particular problem would come in handy.

As for the long-term perspective I would say that a good choice would be to include other people with whom I can share creative knowledge and ideas in general. Horizontal experts can be included in order for the long-term effects to kick in. Getting a different way of idea flow about a particular problem has by experience proven to work in only a positive way towards the new and innovating thinking.

In addition to the rewards for the creative way of thinking and the games creative spots and places can be generated and used during the whole process. In some case from my experience I would be much more creative for an example on a simple desk. Some technology aspects of my daily life also boos my creativity levels towards a beneficial result. My special keyboard and personal gaming mouse have a very positive effect on my creative levels when speaking not only about quality but quantity. Because of the high-tech advantage I am able not only to produce high valued creative work but I can deliver it more rapidly, this is extremely contextual of course. As a long term-respective I would assume that I would use all of the above mentioned methods in a well-balanced combination towards my path of future creative improvement.

3. What practical implications do I need to apply in my daily life, work and project work in order to ensure a creative attitude and engagement from myself and from the people I need and want to work with?

In my daily life creativity plays a huge role in order for me to achieve my goals. In order to apply a creative thought into whatever I am doing for me it is necessary to first of all be aware that I am about to engage into a creative state. After I set my mind to that level of creativity I've awakened and opened my mind towards that way of thinking and towards productivity.

According to Beth et al (2010) "Creativity" (p. 583) a huge part of our creative awakening and general flow can be manipulated in a way from a lot of the social behavior values we hold. If working in a team a support from the higher authorities or co-workers can demonstrate a huge result in short as well as long-term creativity flow of thinking in an individual level as well as group. The creative attitude can be enhanced by the creative way of thinking of people around us and the opposite. Showing a sign of positive thinking for the ideas of the people around us can also benefit the future of the creative flow around us. By bring up positive feedback to the ones around us we encourage them to continue with their creative way of thinking and by that stimulating our own way of creative approach.

On a personal level boosting up my creativity can be related to a lot of elements not only in my daily life but outside of it as well. As previously mentioned in the paper setting up a specific environment, rewards and using specific items in my daily life is greatly benefiting my creative way of thinking. The personal level of creativity is something relevant for different personalities but in general a lot of the elements included in my personal creativity way of thinking could be found in other people's daily life as well. Allowing the items, places and conditions in general which are boosting up our creativity into our daily life could only benefit our creative attitude towards a positive outcome.

Continuation of creativity training scheme

Monday	Card game training (5mins)	Problem based situations(5mins)
Tuesday	Problem based situations(5mins)	Burning questions analizations(5mins)
Wednesday	Burning questions analizations(5mins)	Problem based situations(5mins)
Thursday	Burning questions analizations(5mins)	Card game training (5mins)
Friday	Problem based situations(5mins)	Burning questions analizations(5mins)
Saturday	Card game training (5mins)	Burning questions analizations(5mins)
Sunday	Problem based situations(5mins)	Card game training (5mins)