# PROCESSES OF CHANGE

## '17-'18

FINAL PUBLICATION

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BACHELOR HONOURS PROGRAMME

UNIVERSITY OF TWENTE

# PROCESSES OF CHANGE

## '17-'18

FINAL PUBLICATION PROCESSES OF CHANGE

COHORT '17-'18 SECOND GENERATION

UNIVERSITY OF TWENTE.

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# FOREWORD

For one and a half years, the students of the *Processes of Change* track came together twice a week to learn and develop beyond their main study. Taught and mentored by four great teachers, we studied and discussed a broad selection of topics related to when, how, and why change occurs. This selection included topics of an abstract and theoretical nature as well as aspects that were focused on the direct application of the newly learned skills. As a result, the range of topics covered all possible perspectives on change processes and gave us a strong **academic** foundation for tackling these.

A perhaps even greater result of attending the PoC track was the **professional** development. Instead of merely memorizing facts, we put our knowledge into practice and acquired new skills that could be easily transferred to other contexts. While each module focused on specific skills, some activities recurred throughout the program. These include discussions, public speaking sessions, and the collaborative work in highly diverse groups. As such, the acquisition of these soft skills contributed to our success both within and outside of the PoC program.

The greatest development, however, was of a **personal** nature. At first, there was chaos and several groups were established based on language and main study. Soon, though, the borders between these groups began to soften. Now, one and a half years after our first meeting, none of these borders prevailed. In the course of the program, we grew together to one cohesive group. We stuck together in times of hardship, cooked for each other, and had one or more drinks together. This development reflects not only a group change, but also how we as individuals were shaped by our participation in the honors program. The academic discussion of change together with the interpersonal experience gathered made us more flexible, tolerant, and welcoming when being faced with changes of any kind.

All three, the academic, professional, and personal, developments now peak with the final project. Students took on challenging tasks and situations and applied all of the gathered knowledge as well as skills to reach their change goals. The resulting reports are presented in this booklet.

# FROM THE TEACHERS

## NEVER PESSIMISTIC, MOVING **PURPOSEFULLY** TOWARDS POSITIVE (PERSONAL) TRANSFORMATIONS

It has been a great pleasure teaching this Honours group. As teachers we came to know the students as people that help one another, as well as us teachers, in a **stimulating** and **constructive** way including by suggesting points for improvement. Working as a teacher in such a reciprocal atmosphere is similar to doing a leisure-type activity; it is not a duty but a fun task among young gifted and enthusiastic colleagues. If our students manage to maintain this attitude and way of working throughout their working lives, they will, without a doubt, all become happy and successful professionals with the ability to seed enthusiasm and teamwork.

Initially, some students were too modest by thinking that the content of the literature, or a number of references in the text books, were more important than what they were thinking themselves. One of us remembers a student making a presentation about a new technology and concluded, on the basis of the literature, that the pros of the technology outweighed the cons. But after asking this student about her own opinions about the topic after her presentation, she said she was against this new technology but could not explain why. Subsequently, she learned to turn her own feelings and understanding into scientific intuition, and her intuition into rational arguments. She concluded in a new presentation that the cons of the technology could well outweigh the pros. Generally, we saw a growth in **self-opinions** and **scientific self-confidence** among all the students.

Indeed, we liked the way the students dealt with **challenges**, especially in the later part of the Honours programme. One of the challenges was that they had to **develop a new theory** themselves, something which is quite unusual for (Bachelor) university students. There were moments during the assignment when the students really did not know what they had to do. But they never complained. Even after short moments of despair, they went back to their normal mood of optimism.

> *They became familiar with atmospheres in which rational and intellectual arguing and debate prevailed.*

Another challenge the students took on was to **persuade their peers** to change their behaviour. This ranged from embracing more diversity in their student house, reducing procrastination by developing their goal-orientation, or reducing their coffee intake. Some students also had a go at persuading pubescent high school students from using their phones while biking! The students went out of their comfort zone, "into the wild", and started their own personal journey towards sticking out their necks and becoming **leaders of change processes!**

Over time, we also saw and heard all students recalling their individual, **unique experiences** in personal development. They became familiar with atmospheres in which rational and intellectual arguing and debate prevailed; over time, all the students without exception grew to appreciate feedback from and to others. In fact, all of them found their personal 'door(s)' genuinely opening up to others, in terms of enabling them to really **connect**, under various circumstances and on different issues. Despite our occasional flaws as teachers, we greatly enjoyed trying to facilitate this, as humble witnesses. We know from our own (sometimes rough and tough!) personal experiences, it is crucial to create a sufficiently safe psychological environment with yourself and others. After 1.5 years of evening lectures, the students have become a real, **cohesive team**, which became clearly visible during the pinning ceremony. We dearly hope our students will take this along in their lives. Keep up that work and continue moving forwards. In the end, this is an elementary part of our *Human Touch* that will make our work as UT alumni successful...

Overall, we had the feeling that the students regarded it as honorous not to ask for a lot of advice from the teachers, but somehow meet the challenges square-on by themselves. Hence, we hope and expect that these Honours students will meet the processual challenges of change in their own long future.

*« Awareness of a pessimistic type of mood is one thing, and using your smarts to find out its contributing factors is another good thing to do, most of the time, to resolve those often invisible, negative issues which can drain great sources of human-energy. »*

In other words, if feeling down, recognize it, study it and try to engage in reframing or regulating your mood. But remember, regulating bad (as well as very positive) emotions certainly costs energy as well. All the members of this and comparable Honours groups have the smarts to utilize their energy every minute of their lives wisely. Using your time wisely is doing things for the good of the world, and thus not only for your own small circle of friends and members of your family. That way, you will do us --as well as all humankind-- proud; this is giving back to the world the chances in life you got when other people got --often by mere chance-- much less.

Thus be optimistic with the world in mind; go and find your worldly purpose (if you have not really found it yet)!

All of the students have taken the first steps into finding their **own purpose** and **change leadership** by developing their individual change projects as part of the last challenge in the Processes of Change track. Through the students' choice of topics and change goals they showed their diversity as a group and individual strengths and ambitions. Finally, it was interesting to learn how much all of the students value the "co-constructive" approach to **consulting** the DesignLab as well as inducing change in others. Is the real change the students uncovered, that "expertise" which used to be ranked highest in the past, must go with the skill to persuade and work with others to utilize this knowledge for the better good? We hope the students will use their new-born change leadership skills towards positive, meaningful change in the future. We expect and look forward to seeing and hearing more of and from them!

## The PoC teachers team:

Dr. Tsjalle van der Burg & Prof. dr. Celeste Wilderom
*(proud founders of the UT-Honours track,*
*Processes of Change: you, students, made us proud!)*

Wouter Keijser & Dr. Desirée van Dun
*(also very proud of your accomplishments!)*

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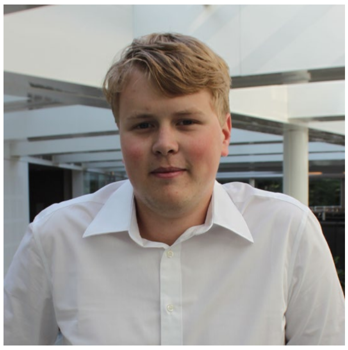

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***"This track helped me discover the wonders of philosophy, football economics, and robot love."***

***"Less talking, more persuading!"***

***"Here, I often feel that I need to only show products that display my high working standards."***

## Honours Processes of Change – Robbin Baars

*Smart Industry: The need for change leadership in a fast-paced environment*


### Abstract

This project was based upon my bachelor thesis that I did in the last year of my bachelor studies. In this project, I described three things; I started with my results from my thesis (abstract), then I described the project plan that evolves out of this (and which will be the main project for this report) and finally I described my personal development plan that has been executed. The change project was about successfully bridging the gap between the hype and reality of Smart Industry by using leadership and change management. With on the one hand an expert interview in the field of innovation & leadership and on the other hand interviews with organisations themselves, this project tried to assess which change management styles are the most suitable for successfully implementing Smart Industry and what implications should be overcome. Finally, I reflected on the project methodology and actions; what was good and what I could have done differently.


### Introduction

In this final module of the Honours track; Processes of Change, a change project has to be executed. The goal of this module is all in the name, namely; learning by doing. It gives us the opportunity to implement the knowledge and skills we have acquired into one final project. In this individual report, the project plan, the proposed change, methodology for this change and personal development reflection are described. The project will be carried out individually and will be done outside the University of Twente.

### Project plan

My thesis was about the impact of Smart Industry on manufacturing processes within the area of Twente. Smart Industry is quite a vague term and mostly a flashy catchphrase. In essence it is about the current trend of data exchange and automation in manufacturing processes. However, it is also possible that different types of organisations use it (logistics, service providers etcetera). See below for the abstract, which gives most information necessary about what the research was about.

> "*This thesis is part of a more substantial research to see what the impact of Smart Industry is on Organisations. The purpose of this particular paper is to disclose the consultancy literature, or the so-called 'selling stories', and to see whether Dutch SMEs deviate from the papers concerning Smart Industry impact on manufacturing processes. The research was carried out as a survey, backed up with qualitative opinions gained in a Smart Industry conference. Due to the quantitative approach for this thesis, a questionnaire was sent to managers in SMEs, which measured the impact on three levels (accordingly with the three subjects of the researchers) and the results were analysed and discussed towards the end of the thesis. From these results, it can be concluded that Smaller and Medium sized organisations in The Netherlands deviate from the selling stories.*

*Each manufacturing dimension measured is lower than stated in the consultancy literature. The SMEs present themselves in a different stage in the Gartner's Hype Cycle. There is still a lot to be investigated what accounts for the difference that has been found. New research could focus on how to successfully gap the bridge between hype and reality of Smart Industry." (Baars, 2018, p. 1)*

In my thesis, I found it difficult to incorporate the things we had learned in the last five modules in Process of Change, as it was more of a quantitative kind. In the last sentence, it becomes clear that more research is needed on how to successfully make the transition from the hype of this subject, towards the reality that will occur in the next couple of years. This is exactly where change management and change leadership are needed. A new project starts!

The change goals for this project are: making organisations aware that Smart Industry adoption is not easy (they probably know this already, but still) and that certain change characteristics are needed to carry it out successfully. It may have positive effects on the organisational efficacy and profits, but you have to make employees aware that it is not only positive for the organisation's profit but also for them and society. For example, when I attended a conference in Hengelo (organised by the 'Verenigde Maak Industrie Oost' and the UTwente on the 7th of June) for my thesis, I heard that a lot of employees are afraid that they will become obsolete because of new technologies. I do not think this is the case; I believe that their jobs will become easier or that the jobs are given a different fulfillment. Besides the change goal for enriching the literature with the focus on the more social aspect of Smart Industry, I personally think the most important goal is to enrich myself and to use the coach to help my achieve bigger goals than just this project alone (more on a personal level). Although I do not experience any problems with implementing Smart Industry applications myself, and do not benefit from a solution, this is an opportunity to learn even more about the subject. Moreover, the companies contacted and myself can learn from eachother within this project.

In the next parts, literature review, the methodology of designing the interviews and the idea behind the change initiation will be further elaborated on. In the final part, I will reflect on the method and execution.

## Theoretical framework

The need for change is justified in the introduction. Recent research focusses on the how tasks and activities within jobs are changing through Smart Industry. The emphasis is put on how the job fulfilments are changed instead of the loss of jobs. Investing in human capital, embracing new technologies and offering people new chances within organisations is important. However, to invest in human capital for Smart Industry, further research is needed to see what the effects are on skills, knowledge and work pressure (Corporaal, Vos, Riemsdijk, & Vries, 2018). Organisations are now put into the position to adopt I4.0 developments by organising and structuring the jobs and work offered in different way and they have to focus on how these individuals prepare and develop themselves to keep their work enjoyable and to keep productivity levels high (thus, how to cope with the change) (The Smart Industry Working Group UTwente, 2018).

The challenge is now to find out what kind of change interventions and leadership types are suited to these kinds of innovations. Therefore, I will look at the change literature and will have to decide which concepts and theories are the most relevant (in my opinion). Then these theories can be compared to what the expert and interviewees think. The following literature was chosen by carefully assessing the topics we had during the honours classes and assesing the literaure that tries to link innovation with leadership and change (whilst considering the social aspect; employees).

### Transactional leadership

Transactional leadership is based on an exchange relationship. The leader makes clear to its followers what he or she expects (Bass, 1999; Yukl, 1999). This leadership style is known to have a negative effect on new innovations and innovative behaviour.

### Transformational leadership

The counterpart of Transactional leadership is Transformational leadership. It is defined as a style that makes the followers perform better than initially expected by motivating them. This is done by altering their morale, ideals, interests and values, rather giving them an absolute reason to do something. This leadership style is known to have a positive effect on new innovations. (Bass, 1999; Yukl, 1999).

Even though there is a lot of material that says that transformational leadership is positive of innovative behaviour, and transactional leadership has a negative effect on innovative behaviour, the amount of evidence is scarce. According to Pieterse, van Knuppenberg, Schippers & Stam (2010), transformational leadership is only associated with increased follower innovative behaviour when psychological empowerment of followers is high. Psychological empowerment is an intrinsic task motivation that reflects in a sense of self-control in the work that an individual does and an active involvement within the job. Examples of these are ‘‘The work I do is meaningful to me’’ (meaning), ‘‘I am confident about my ability to do my job’’ (competence), ‘‘I have significant autonomy in determining how I do my job’’ (self- determination), and ‘‘My impact on what happens in my department is large’’ (impact).

### Servant Leadership

This topic was learned to me by my coach Bea Krijgsveld. In Servant leadership, the leader shares its power, considers the needs of its followers and tries to help, not make, people perform as high as they can. You can also see it as a pyramid. In a normal (transactional) leadership structure, the leader would be on top of the pyramid, exercising power over the people that are below them. With servant leadership, you turn the pyramid around where the leader exists to serve the people, but still stays in charge. Whilst it sounds quite similair to transformational leadership, there are differences between the two. **“**Both transformational leaders and servant leaders are visionaries, generate high levels of trust, serve as role models, show consideration for others, delegate responsibilities, empower followers, teach, communicate, listen, and influence followers.

Certainly, transformational leadership and servant leadership are not antithetical theories." (Gregory Stone, Russell, & Patterson, 2004, p. 359). **So what is the main difference then between transformational and servant leadership?** Servant leaders tend to focus more on the people that are their followers (remember the pyramid) whilst transormational leaders focus more on the organisational objectives. Servant leadership also tends to focus more on athenticity, humility and interpersonal acceptance. These are not explicitly elements that are used in transofrmational leadership. Moreover, Servant leaders tend to focus more on concern for their followers by creating conditions that can enhance the wellbeing of its followers. Therefore, the Servant leaders can facilitate the realisation of a shared vision (Gregory Stone, Russell, & Patterson, 2004).

## Team Coaching and Effective Team Leadership

Within organisations, there are a lot of leaders that are trained to coach their teams or other teams. Because the leader is part of the team, an *effective* leader will share his vision with the team and will show the loyalty attached to this vision to other team members. This is the main advantage a team leader has, already being a part of the group. "Yet, when things get tough and become conflictual, the independency of an external professional coach is an advantage (Slagter & Wilderom, 2017)." This is an important subject for Smart Industry because these team coaches or external professional coaches are needed to successfully implement and maintain the change that it brings.

From this literature and the proposed problem the following problem statements could be made which I want to test with an expert and the organisations involved in my prior Smart Industry project:

1) Problems with the adoption of the right leadership styles towards the employees
2) Problems with making employees feel that they have Psychological Empowerment
3) Problems in motivating people
4) Problems in convincing making people to change

## Methodology

To recall, the goal was to make organisations aware that Smart Industry adoption is not easy and that certain leadership characteristics are needed to carry it out successfully. Therefore, we will start with the expert interviews, and will later on have interviews with the organisations and see if there is a different in view-points. These interviews should not only act as an information obtaining act, but will also inculde some discussion with the interviewees to really test them and their knowledge. Afterwards, a report is made on what aspects are considered to be important. This information will be given to the organisations involved in the form of this report.

| # | Employees | Type/Company | Role | Field | Date: |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| | | Expert | Operations Manager/contracted/almost retired | Production | 05/09/2018 |
| 2 | <25 | C. de Wolff Konstruktiebedrijf B.V. | Management | Construction and production | 13/09/2018 |
| 1 | <100 | Lentink Varsseveld | Chief Technology Officer | Production | 13/09/2018 |

*Includement criteria*
Experts: Have to have a role within a company (or independent contractor) where they implement change projects and have to succesfully implement innovations or have done this in the past.
Organisations: **Manufacturing** organisations that have as maximum 250 employees. Currently implementing or looking to implement Smart Industry measures and possibly (not a must) having difficulties with it or do not get the expected outcome. Preferably someone who has an overview of the organisation.

The interview structure that is used is semi-structured, because I have already sent out a structured survey to the companies I will be working with before. Moreover, because this project is of a smaller size, I find it more important that I have a good, customised, interaction with the interviewees than a standard conversation. The three interviewees are from two different types of organisations and the expert interview has a different type of role. For the semi-structured interview guide, please see the appendix.

**Results**
Below I provide a collection of the most important interview quotes. Of course there are more, but these were the most relevant. To recall, I formulated problem statements that I wanted to test within the organisations and with the expert that I interviewed. Therefore, the quotes are divided into the subheadings per problem statement.

**1) Problems with the adoption of the right leadership styles towards the employees**

First of all, I had interesting discussions with the managers and expert on what types of leadership styles suit the implementation of these new technologies the most. Some were not directly applicable to Smart Industry, but I think they are still important to acknowledge. Generally speaking, there was one theme that seemed to be the most appearant and that was that every person that was interviewed, changed his/her leadership style behaviour depending on what situation he/she was in. For example:

*"I have also worked in Russia. Over there, I was a planning manager. At that moment, I used the same style as I currently use which is transformational leadership. I used this type of leadership because I had the time to implement and the time to influence the employees*

*(longer term). However, when I started working offshore in Russia I got assigned an operational task which worked completely different for me. Things happen that have to be solved immediately to preserve the safety of the people.*
*So at that moment in time, I used directive (transactional) leadership way more. This was more of a Command & control setting. Like a military operation.*
*However, everyone also expects this at that moment in time because they know what they consequences are if they don't act fast enough. So you have to be able to change between different leadership styles.*
*If you want to sustain the change for the longer term and you have the time, I advise you to use the transformational/servant leadership styles. But if it has to happen now because otherwise we will go bankrupt, then it becomes more directive. But try to stay with the transformational." – Expert*

*"With everything we try to implement within the organisation, we try to level with the employees. We have all kinds of employees; from no degree to university degree. That is the first step to take. After, when you want to transfer a message or new implementation, this is done on that level of the employee. We call this People Management. Dumb questions or proposals do not exist within our company. This is what we try to provoke". – Interviewee 1*

I think the general thing that we can take from these citations is that it really depends on the situation, the person and the organisation to decide what type of leadership style you should take. These citations were quite generally speaking (especially the one from the expert), but I think they are really applicable to Smart Industry as well. Comparing the expert to the other two interviewees, they seemed to have more difficulty of really telling me what kind of role they take as a leader.

**2) Problems with making employees feel that they have Psychological Empowerment and 3) Problems in motivating people**

The expert was really specific, also talking about intrinsic and extrinsic motivation:

*"Yes, sort of. I try to use goal setting. Describing the goal and why it should be achieved by the employees. And why something should be done. I do this in order to make them responsible for the solution they make and implement. I want them to embrace their tasks. They should have an intrinsic motivation for the task."- Expert*

*"What I have noticed in my direct work environment, and this is about one person, that has a PhD degree. Myself, I did my studies in an applied university, and you can notice that that person was not used to work in an operational environment. For him quality is everything and stands above everything.*
*So for this person you should act carefully because he will not be able to handle directive leadership. My task is to constantly show what the goals are and what the milestones are that should be achieved. This should be intrinsic, because if you constantly have to direct your employees as a manager, it can only go right for a small amount of time because people will*

*then start to wait until they get directions of the manager, or that they start to get demotivated because they cannot attach themselves to the tasks." - Expert*

Moreover, he was the only one who brought up the terms transformational leadership and transactional leadership himself.

**4) Problems in convincing making people to change**

When I asked the interviewees if they had received a lot of difficulties with implementing Smart Industry, they say that they did not get too much resistance yet. The quotes below represent that.

*Tells about what his last project was (disclosed) -> has to do with smart industry and robotics.*
*"I had a problem with an engineer who was very keen on leading the project. The main goal of the project was to decrease costs (had to do with transportation time). The cost savings would be up into the millions. On the working floor, the team was very motivated because they were specialised in this stuff, but the I could not get the rest of the people on board. This was because there was resistance to change. It took some time but I let the people reflect on what was actually going on and let them think why it would be a good change. Because of this reflection there was eventually acceptance and after this they got motivation." - Expert*

*"Because we are such a small company, you really can feel what employees think and because there are not that much management layers and because we are a family-owned business, it is easy to solve disputes within the organisation. Moreover, because the employees work so long here, they often say: 'Eerst zien, dan geloven'. But eventually they will just accept it because it works. The employees also know because they have such valuable skills that they will not be easily replaced by robotics. Only the task and the role of the employee will change when we will introduce Smart Industry in the organisation."*
*- Interviewee 2*

*"With every change, it proposes problems in the beginning. Not only with the employees, but with everyone in the organisation. The most important thing is for us that the product satisfies the needs of the customer and we try to tell the employees that the change has been initiated to satisfy that goal." - Interviewee 1*

When I brought up the subject whether they use/hire team coaches or not, I received different responses from each individual.

*"Yes we do. Within our company we try to have managers be their own team coaches, at least this is what we trained them for. If this does not work out, then we make use of external or extra team coaches to advise these managers. - Interviewee 1*

*"No, we are not that big and we do not see the advantage of it at the moment. – Interviewee" 2*

*"In the past, when I worked at company x, I invited a team coach each year to 'excite' (prikkelen) my team and myself. As a leader/manager of your team, you can arrive in a certain rhythm or status quo. Sometimes you need someone else to give reflection on what the roles and responsibilities are within the team." - Expert*

As we can see in these quotes. It really depends per company and team if team coaches are regularly hired or not.

When I asked about the fact that jobs will possible dissappear I got the following answers:

*"Simple jobs will disappear and already have disappeared in and Industry like ours. However, what we need are people that are highly educated to control the processes that are made possible with these new innovations." – Interviewee 1*

*'I truly believe that a lot of parts in our production processes can be automated and are already automated, but the tasks that are difficult to do with machines require skills of the employees. Therefore, we will always have a crew of highly skilled production employees' – Interviewee 2*

## Discussion

Coming back to the problem statements, I have to say that Smart Industry, within the organisations that I have interviewed, does not really cause a lot of 'problems' yet, according to the interviewees and the answers that they have given to my questions. So, maybe problem statements are not the right words to describe the transition that might be going on. I think the word 'opportunities' fits better. At least that is what the interviewees tried to tell me, that it is benificial for most people. I think that the expert and the interviewees were mostly on one page. It was just the amount of knowledge that set the two groups apart. My plan was to be able to assess which change leadership management styles are the most suitable for successfully implementing Smart Industry and what implications should be overcome. When starting this project, I really thought that there would be one leadership style more suitable than another leadership style. I may have been proved wrong, especially by the expert. For Smart Industry, and new innovations generally, your **leadership style changes, or should change throughout the organisation**, but that it also depends on **the employees' role** and on **how quickly it should be implemented**.
For example, when you are implementing Smart Industry because you have to catch up with the competition, your company is in a position where you necessarily have to change and it has to go quick. I can imagine that in such a case, a more directive/transactional approach is suitable because it takes time to change an employee and there is no room for that at that moment. However, if you are a leader in the industry, you can actually show your employees and use time to explain to them what the organisational goals are behind the rationale and also make

them feel more responsible working towards these goals. In the organisations that I interviewed, there were not really a lot of problems visible directly related to employees and their attitude towards Industry 4.0. Especially how this influences their tasks is a big subject. It is often said that it will be negativily influenced and that jobs will dissapear. One way or another, the latter will definitely happen. However, after these interviews I have become not so sure about the negative aspect on employees' behaviour or motivition.

I think that their 'Psychological Empowerment', which is how they perceive their job and its usefulness, will only increase. In a lot of applications, Smart Industry will probably help them work better and in other cases their job will get a totally different fulfillment, acting upon the processes that are already in place. But rather than doing them, deciding upon them. The task is, of course, as described above, that the manager should be the right leader for the right employee. As noted by one of the interviewees, one should use a different leadership style with a PhD student than with a practical skilled apprentice that works on the shop floor. For a PhD student, a servant leadership leadership style would be very suitable whilst for the practical worker a more directive, maybe mixed leadership style would work better. According to Blanchard, Zigarmi & Nelson (1993), we can call this situational leadership. The fundamental prcinciple of this style is that effective leadership is task-relevant and that there is not one single best leadership style that one should use. The most succesful leaders are those who can adapt towards the abality and willingness of the group or individual that they are trying to influence. Please see figure 1.1 in appendix to see which leadership type would be appropriate to take on each level of employee development. In this figure, "the term Development Level refers to the extent to which a person has mastered the skills necessary for the task at hand and has developed a positive attitude toward the task. We believe that competence and confidence can be developed when the appropriate leadership styles are used." (Blanchard et al., 1993, p. 27)

In the interviews, I also asked about the role of team coaches within their organisation and also in the case of an application of Smart Industry. According to Celeste Wilderom and Martian Slagter, when things get tough and become conflictual, the independency of an external professional coach is an advantage. I think this is true, but especially for bigger organisations with an existing hierarchical system.

Lastly, which is more of a side note, but very important to mention; companies are not happy with the therm Smart Industry. When we look at this quote…

*"According to us, Smart Industry is the increased usage of horizontal and vertical integration of the supply chain through the use for data. Everyone is misusing the word Smart Industry. Only implementing Robotics or having a better purchasing technique is not Smart Industry. The government is trying to pull all of the organisations towards those innovations, but I can tell you know that most of the SMEs in The Netherlands do not know how to pull that off. Some companies do not even know how to send faxes. I think only 10% of the companies are using the term Smart Industry correctly." – Interviewee 1*

It becomes clear that the government is not focussing on the right group of people, or maybe even has too ambitious goals. To initiate a better change within this very interesting subject of Smart Industry, the government should focus on finding out what Smart Industry actually is. It is not just about automatization (which belongs more to industry 3.0) and not just about implementing new innovations. It is about connecting organisations and inner organisations with each other and changing the people that are in it to drive even more success.

## Reflection

I hope I have enriched the literature a bit. My findings were not ground-breaking and definitely not rocket science, but they did help me understand better how it really affects organisations' inner structures and how leadership is involved with that, rather than looking at it from a general viewpoint. For me it has been really useful. Especially because I am studying Supply Chain Management, and have knowledge about this subject I can become a change leader myself within organisations and I am already a step ahead on knowing how to be successful at it. I do not really know if I changed the interviewees as the interviews functioned more as an open discussion. How I should could have done that better is by sending a survey beforehand and a survey after the interview to see if there was any change in their thinking or knowledge about the leadership styles that I proposed to them in the interviews. Moreover, I did the interviews by telephone because the companies were quite far away and did not have the time to host me. I think I would have enjoyed the interviews even better if I could have taken a look at their real physical location.

Currently, I am really still developing as a change leader. According to my Discovery Profile, I am more introverted than Extraverted. However, I do have the possibility to switch rather easily to the more extraverted side (also according to the report). Within my study I won't be using leadership that much, apart from group projects, but I hope that I can really start to use it when I get my first job within an organisation or during my internship in a few months.

## Personal Development

For my personal development, I have had individual coaching sessions with Bea Krijgsveld. These sessions were focused on my personal developmental goals, rather than on the bigger project. First, we started working on goals that I found important at the time of my thesis, and after the sessions had ended we had a look at my insights profile. With 4 times 1+ hour sessions, I have the feeling that I have gained tremendously in my personal development goals. These are the things we have worked on:

**Planning:** Bringing structure in daily activities and write down deadlines. Because you do not have that much lectures and classes anymore, it can be quite difficult to focus on the right thing at the right time.
**Motivation:** Looking for my own intrinsic motivation. When running into a difficult subject or moment in the thesis, try to bridge this with emotions or things you like in order to make it fun & bearable.

**Asking for help:** Whenever I do a task, I will try to do it myself rather than asking for help. It would be better if I ask for help if I find something difficult, in this way, it also helps me to reflect on my own actions.

Please see the appendix for the coaching sessions templates. After each session, this was filled out and reflected on (template provided by Bea).

## Conclusion

Based on this report and my personal developments made with Bea Krijgsveld, I can say that it has been succesful for me. Especially taking the time to focus on something else (for example the interviews, developing my own skills) rather than just your normal study is something that I have found very valuable. I want to thank every teacher in the PoC honours track for providing me with material to grow my skills set outside of my normal study.

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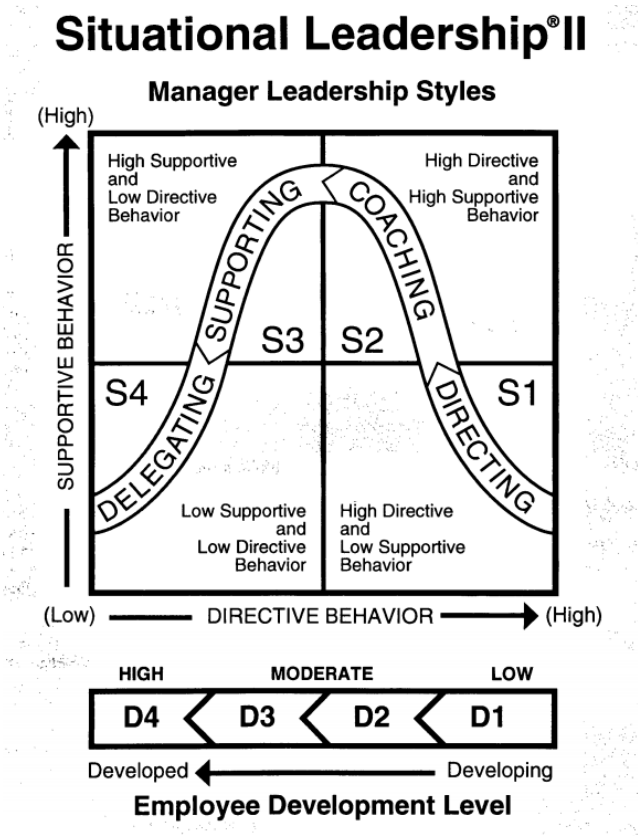
**Appendix**

**Figure 1.1**




(Blanchard et al., 1993, p. 26)

**Coaching appointment template**

COACHINGSAFSPRAKEN t.b.v. reflectie op persoonlijke ontwikkelingsdoelen honoursprogram

Naam student: Robbin Baars

Ontwikkelingsdoel (zelfsturing & reflectie):

Praktische afspraken:

- Leidraad aantal sessies & tijdspanne / beschikbaarheid coach

- Opdrachten en reflectie

- Vertrouwelijkheid en feedback

Akkoord:

Reflectie:

## Interview structure

For companies:

- Me introducing myself.
- What kind of company (family owned, bigger company etc)?
- Size?
- Recent experiences with Smart Industry (problems with employees?)
- What kind of change interventions?
- What kind of leadership styles towards employees?
- Plans of what to do in the future?
- Me introducing leadership styles (if they haven’t mentioned it yet)?
- Do you focus more on the organisational objectives or more on the personal objectives of employees?
- Did you ever have a teamcoach intervention in your company?

For expert:

Ask about situations he encountered and which leadership style he used to solve that situation.

- Employee not living up to the innovations he is epxected to make?
- Implementing something new, how do you get the rest to follow?
- What leadership style do you use most of the time?
- And when do you use transactional leadership?
- Do you use a different kind of leadership with a different culture?
- Did you ever hire a team coach or was this not necessary?

**Empowering the Customer: Feedback-driven Development of a Design Product**

Author: Jakob Buske

Supervisor: Desirée van Dun

At a university as entrepreneurial as the University of Twente, it does not come as a surprise that many students at least at some point considered founding their own business. I personally shared this notion with many of my peers, wondering how it would be to bring an idea to life. More so, I wondered what exactly would happen after pursuing an idea. Either a viable and even flourishing business or a failed project that was already dead on arrival would result. In either case, I was interested in the actual outcome of pursuing an idea.

Even despite the many business ideas on campus and the entrepreneurial spirit of this university, few actual businesses are founded. While it might sound impressive that 50 startups are founded each year on campus (University of Twente, n.d.), the actual percentage of the 10,000 (University of Twente, 2018) students enrolled at the UTwente becoming founders remains low with 0.5%. Anecdotally, I know that many students have ideas but are not willing to pursuit them due to the fear of not being qualified enough and, hence, failure. This issue was not new to me as I also have had many potential business ideas during my study but lacked the confidence to actually take action. This Honours project will be about me tackling this issue and moving to the next step of making the transition of an idea to a validated concept.

A closely related but still distinct reason for me not to pursue a business idea is that I am hesitate regarding sharing the resulting products to other people. I have a tendency to be a perfectionist about the products that I present to other people. Here, I often feel that I need to only show products that display my high working standards. If products are below these standards, however, I am too ashamed to present them. Ironically, this very process prevents me from receiving valuable feedback. Hence, this project will involve me sharing the idea and prototypes with other persons while overcoming my usual hesitations about this.

The processes of a concept and product validation both involve assumptions about the needs and expectations of a given target group. These assumptions can be tested and the resulting feedback can be used to fine-tune the previous assumptions. If repeated, a methodology that is commonly used in many industries and fields. For example, it lays the basic foundation of the scientific method (Gleitman, Reisberg, & Gross, 2007) and Design Thinking (Brown & Wyatt, 2010). As a result, it is currently also incorporated in the commonly used lean startup methodology (Eisenmann, Ries, & Dillard, 2012; see Figure 1). As both Julian and me have a background in the social sciences and thus are familiar with this methodology, we found it to be well suited approach for the project.

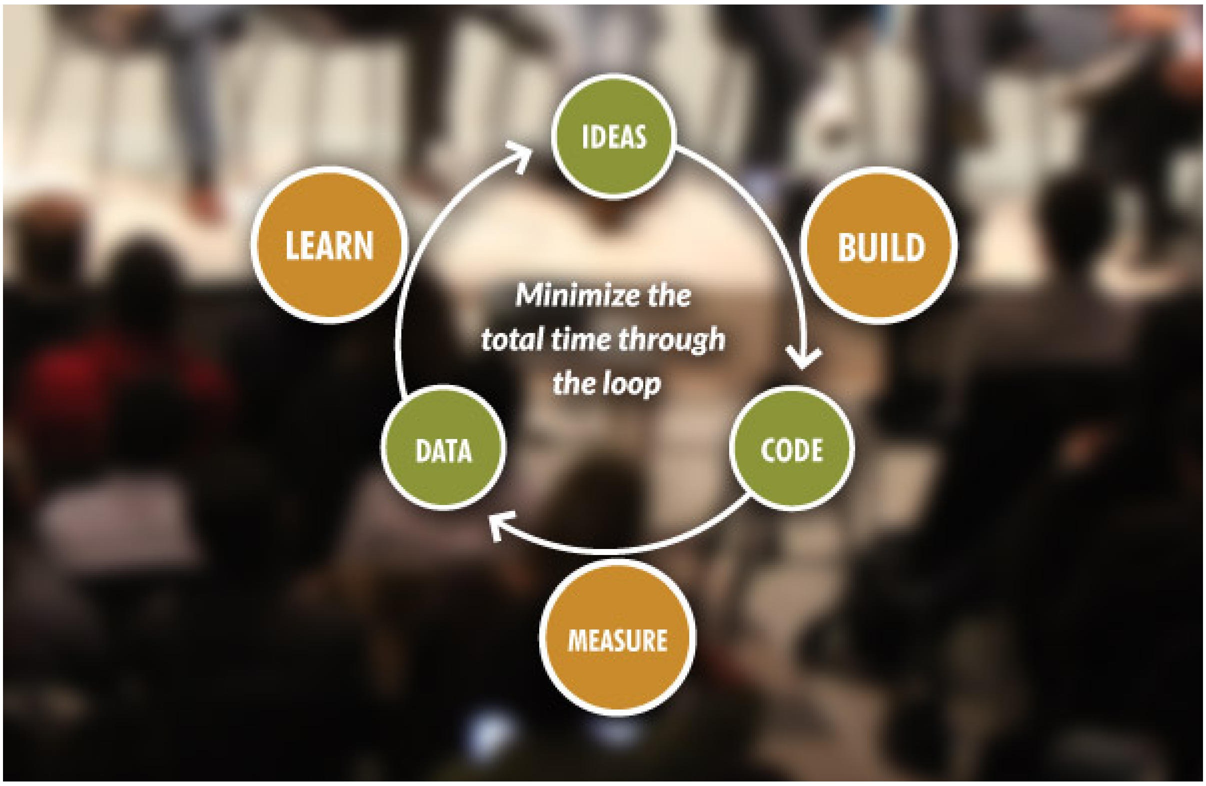



*Figure 1. The lean startup methodology. Reprinted from The Lean Startup, by E. Ries, n.d., Retrieved from http://theleanstartup.com/principles*

Obviously, a period of ten weeks is not sufficient to validate and found the next multinational corporation. Accordingly, this project will involve a simple idea that can be implemented with relatively low technical requirements and required capital. The idea used is based on the observation that many people find maps of certain cities or regions to be visually pleasing. As a result, maps of virtually all cities and towns in the world can be bought in a stylized poster version online (e.g. mapiful.com). The cities chosen are often known to the buyers, either because the live, lived, or traveled there. The current project idea, however, goes further and assumes that one could personalize a map based on the customers personal story and relation to the place. This could be done in various ways, including the visualization of a journey or the homes of an event's attendees'. As this idea is both new in the sense that no company has yet implemented it specifically like this and simple enough to be executed upon within the given time frame, it was found suitable for this venture by my project partner Julian Noormalal and me.

## CHANGE GOALS

The change goals of this project have several levels. Firstly, some product related goals are proposed. As aesthetics of the map are integral to make them attractive to potential customers and, hence, leading them to buy it eventually, the first goal of this project is that the majority of the interviewed target group experiences the final product as visually pleasing. The second goal of this category specifies that 20 percent of the target group confirm that the result product is able to store and communicate personal information. Lastly, the third goal is that at least 20 percent of the target group report the product to be of emotional value.

| Level | | Goal |
|---|---|---|
| Product | 1.1 | The final product will be visually pleasing to the majority of people in the last focus group. |
| | 1.2 | 20% within the last focus group confirm that the resulting product is able to store and communicate personal information. |
| | 1.3 | 20% within the last focus group confirm that the resulting product is of emotional value. |
| Others | 2.1 | In the process, at least 20 students and 2 experts are willing to help us with the design process by giving feedback. |
| | 2.2 | An expert on start-ups or small businesses confirms that the business model developed is viable. |
| | 2.3 | A potential customer is willing to buy the product. |
| Personal | 3.1 | I want to take action based on a potential business idea. |
| | 3.2 | I discuss this project with others. |

While the product related goals are important for the design itself, the main aim of this project is to foster change in others. Here as well, three change goals are set. Firstly, in the process, at least 20 students and 2 experts are willing to help us with the design process by giving feedback. Since I complete this project with Julian, these numbers can be divided by two. Including ten individuals and one additional expert in the time-consuming process involves considerable efforts in convincing potential partakers to do so. As the active participation is not compensated financially or otherwise, no clear benefits that could motivate the participants to do so are obvious. As a result, more efforts in persuading participants to take part have to be made. This becomes even more relevant when it comes to recruiting an expert.

The second change goal is that an expert on startups or small businesses is interviewed about the opportunities regarding monetization of the final product. Again, this goal is a change goal in the sense that it involves actually convincing somebody to take time to review our progress and how this could be used in a business setting. Ideally, this interview ends with a confirmation of the business expert that the designed maps are indeed a viable and marketable product.

The last and most challenging change goal is to get somebody to actually buy the product. Here, a real sale would not be necessary for practical reasons, but the mere willingness of a potential customer to pay money for the product would suffice to meet this goal. In order to archive this, all product related goals need to be met as they determine the personal value a customer sees in the product. More so, a sales process would be necessary to convey the value of the product.

The third level of goals relates to my personal change goals. Here, two abstract goals are proposed. Firstly, despite or even because of my fear for failure, I want to take action based on a potential business idea instead of leaving it like this. Secondly, I want to overcome my perfectionist tendencies in order to approach others to discuss my project. More so, at least some of these people should be not friends but rather an acquaintance. This makes the process more challenging for me but can also make the feedback I receive more honest. When comparing my personal goals to the change goals for others, it becomes apparent that if the change goals of others are met, my personal goals are automatically also met. Hence, the third level of change goals constitutes are more abstract layer to the second level.

## MY CHANGE APPROACH

As explained previously, finding enough participants that are willing to invest their time into aiding with the development of the product by giving their honest feedback is a main challenge of this project. Since the participation does not result in any compensation, the participants have to be intrinsically motivated to be involved, meaning that they have to be interested in the project. This is achieved by two main mechanisms.

Firstly, the participant’s interest is gained by not giving them all information upfront. Usually, an efficient communication about the invitation for feedback involves the requesting party to disclose all relevant information upfront. Possibly, the product that the feedback session is about is even being sent with the initial request to allow the participant to prepare. For this project, however, I decided only to disclose that the project is for the Honours Programme and is about ‘Product Validation’. The lack of information then creates what Cialdini (2016) calls *mystery.* Accordingly, the fact that people do not know what exactly is going on makes them interested. One could also argue that that this method triggers what is known as the *Zeigarnik effect* (Zeigarnik, 1938). This effect describes the human’s need for closure in cognitive processes. If this closure is not provided, a feeling of uncomfortableness is experienced. By mentioning the project but not explaining its whole nature, no closure is provided to the potential participants, making them seek closure by participating.

As the development of the product is conducted in an iterative manner, requesting follow-up feedback on newer versions is an efficient way in receiving feedback without having to recruit more participants. However, this increases the burden of the already involved partakers and consequently raises the threat of attrition during the project. In order to prevent this, the second mechanism makes the participants interested in the project and involved in its process by creating perceived ownership of the product. This is done by making use of an effect observed in crowdfunding. Crowdfunding is a process in which future customers of a product pay upfront for the product to finance its development and production (Belleflamme, Lambert, & Schwienbacher, 2014). During this process, funders are often involved in the process of development. Recent research showed that this empowerment increased the psychological ownership of the product, making the funders more loyal (and more spending) customers (Lipusch, Bretschneider, Leimeister, 2016). This effect, called *co-creation* in popular literature (Cialdini, 2016), is also used in the project at hand. Giving the participants power over the design decisions made in development increases their psychological ownership and thus makes them more inclined to stick with the project. Notably, this is a self-sustaining effect as the more participants are involved, the more invested in the product they become, making them more inclined to be involved. Accordingly, this effect acts as a counter-weight to the increasing burden that comes with continuous participation.

While the previously described methods support the achievement of the change goals related to other persons, two mechanisms facilitate the achievement of my personal goals. The first effect is based on the fact that an iterative methodology is used to develop the product. Here, the big task of creating a validated product is chunked into a series of small tasks that are repeated several times while including feedback from earlier rounds. This way, the actual steps needed to complete the next task at hand become smaller. According to the psychologist Art Markman (2017), this helps in committing to and actually implementing the to be conducted steps, as the task at hand becomes less intimidating and more manageable. Consequently, this effect supports me in achieving my personal change goal 3.1 of making the step from an idea to acting on it.

The second mechanism facilitating my personal change is due to the fact that this project is conducted together with a partner, Julian Noormalal. When being in a change process, the intimitation of a challenge can inhibit one's ability to implement the behaviors planned. Research by Greif and Benning-Rohnke (2015) on this issue showed that participants were significantly more successful in the implementation of their plans when another person is accompanying them in this process. In this study, the researchers used a technique called *Telephone-shadowing.* Here, the participants were contacted via telephone to report on the current state of their change process. This procedure increased the participant's commitment and, consequently, their success in implementing their plans. To some degree, the fact that I work together with a partner has the same effect. Although Julian is not actively controlling me, the mere fact that he checks up on my progress makes me committed to sticking to the original plan even if it is challenging to me. Accordingly, this mechanism facilitates the achievement of my personal change goal 3.2 that involves me sharing my product even if I feel that it is not perfect yet.

# RESULTS

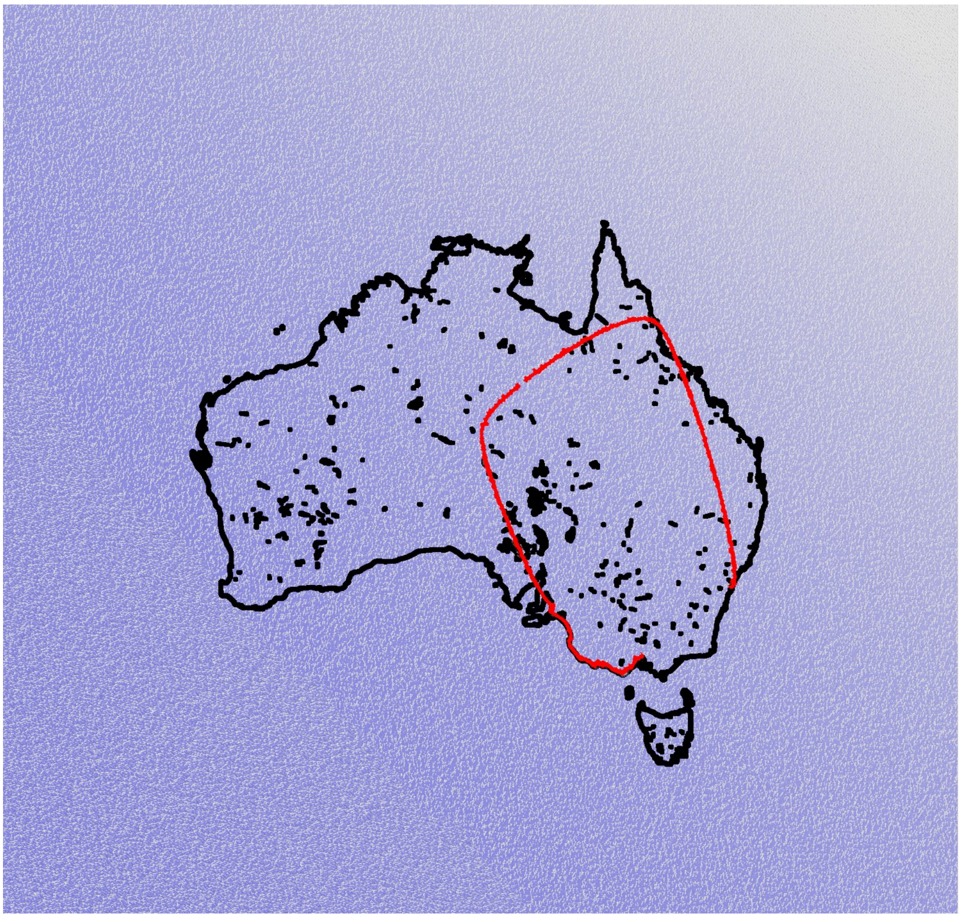


*Figure 2. A simplified version of the travel's visualization. While considered more aesthetic than other prototypes of the same series, it contained less personal information.*

## The Product

A brainstorming session regarding the rather abstract idea resulted in several possible applications. Initially, we decided to focus on visualizing travels. More specifically, we wanted to enable young people that just had graduated from high school and used a gap year to travel the world (an activity often referred to as *work and travel*) to visualize their journey and resulting experiences. This application was of special interest for us due to expected advantages regarding to marketability. Unfortunately, I was not able to create a graphic that would contain information while being aesthetic at the same time. The prototypes that were evaluated as more aesthetic did not contain a lot of information

(Figure 2). When including more information about the journey by displaying pictures of the travel, the prototype looked more cluttered and internally incoherent, making its appearance rather cheap (Figure 3).

Although the reactions regarding the prototype displayed in Figure 2 were mostly positive, two main problems arose. Firstly, as already stated in the previous paragraph, this prototype displayed not a lot of personal information about the journey, as it only displays the traveled route and ignores all the events that occurred during the travel. As such, this prototype is not in line with the original idea since this graphic is more about aesthetics than the emotional value. The second problem would relate to the marketability. As this graphic is plain in nature, it is easy to generate within minutes even with only basic Adobe Photoshop skills. Accordingly, potential customers would have no reason to pay a considerable amount of money if they could generate the graphic on their own for free.


*Figure 3. Travel visualization with personal pictures included.*

During the first round, I generated another graphic that visualized the guests of a graduation party (Figure 4). Although participants reported some doubts about specific elements and I expected no business value for selling graphics in this specific context, this prototype was surprisingly well received. As a result, I decided to continue working on the underlying concept, whose core would be about connecting many peripheral locations with one central point.

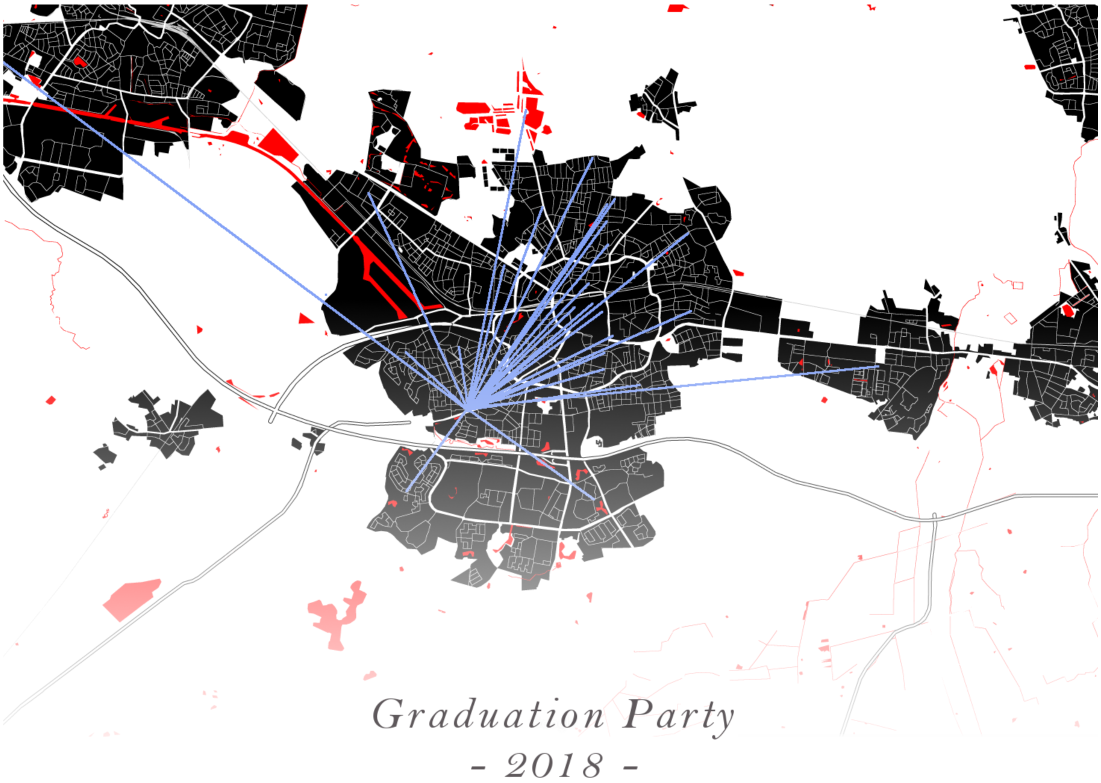



*Figure 4. Visualization of Graduation Party. The lines represent a connection between the guests' homes to the location of the party.*

Having some success on the earlier presented design concept, I decided to pick up one of the earlier ideas that arose before the project started. Here, a wedding would be visualized by displaying where the guests would come from. A resulting prototype is presented in Figure 5. In this report, this prototype is considered the final version of the developed product. In reality, though, many versions of this (and other) prototypes have been developed based on the individual feedback gathered in the process. As the feedback surprisingly often pointed in different, sometimes even in completely opposing directions, not all versions could be considered.

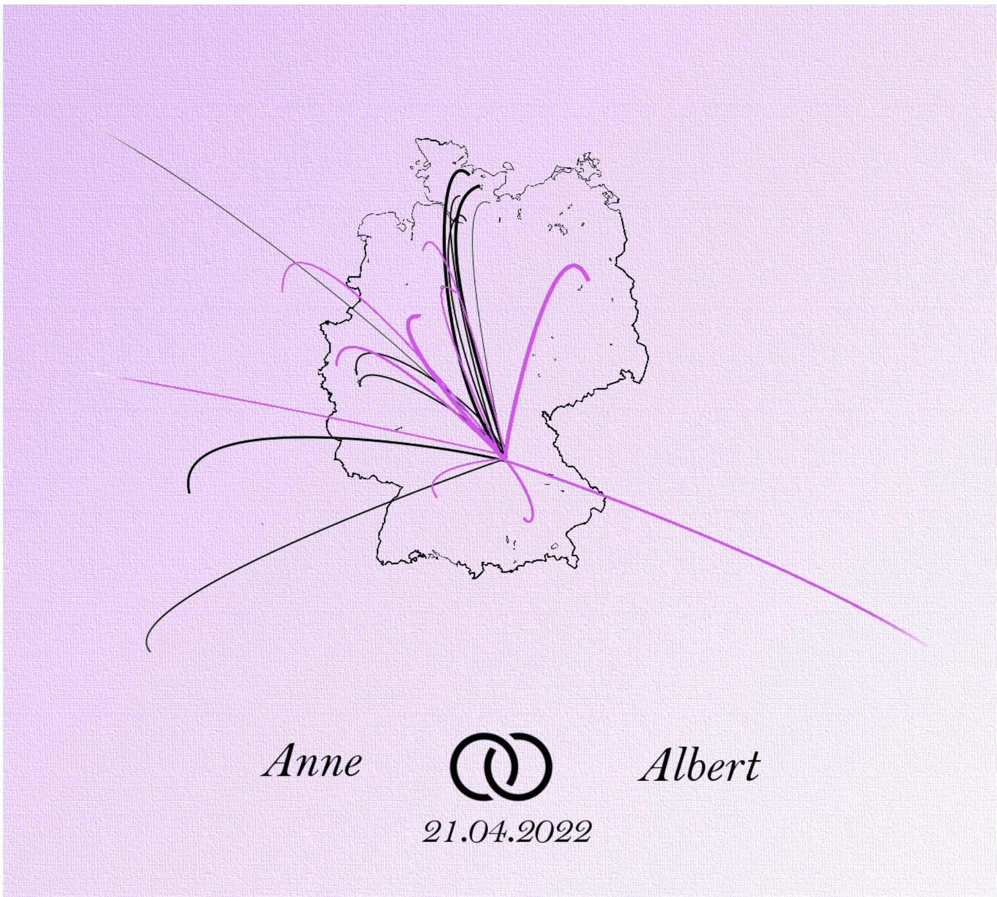



*Figure 5. Visualization of wedding. The colors of the lines represent to whom of the marrying couple the guests belong. Line thickness indicates the number of persons coming from the place of origin.*

**Product Goals**

*1.1 – The final product will be visually pleasing to the majority of people in the last focus group.*

Achieved. The majority of interviewed participants (80%) found the final product to be visually pleasing. However, some participants also found the product to be visually unpleasing with one experiencing the graphic to be highly unpleasing. Moreover, even the participants that reported to like the product gave further feedback for improvement, indicating that the process is not yet completed.

*1.2 – 20% within the last focus group confirm that the resulting product is able to store and communicate personal information.*

Achieved. All participants reported that the product is able to store personal information.

*1.3 – 20% within the last focus group confirm that the resulting product is of emotional value.*

Somewhat achieved / ambiguous. The majority of partakers (80%) stated that the final product yielded a high emotional value to them. While this result exceeds the goal by far, the demographics of the participants raise some doubt about the validity of the results. Most participants reported that the emotional value contained in the product would highly depend on the specific context. A product targeted at marrying couples is, for obvious reasons, only meaningful if one is actually about to marry. As a result, four particpants (40%) stressed that their evaluation of the product at hand was only an estimation of what they would think and feel if they were in the projected situation. This complication can be considered one of the biggest weaknesses of this project. While the product’s concept was changed in accordance to the participants’ feedback as intended, the participants involved in the design process did not change to the same degree. Accordingly, the students asked for an evaluation were not suitable for the process at the end as they were not part of the target group.

*2.1 – In the process, at least 20 students and 2 experts are willing to help us with the design process by giving feedback.*

Partially achieved. Ten participants were successfully involved in the design process. All of them did not only evaluate a product version once but also continued to give feedback at at least one later stage of the project. However, outreach to potential experts on design products and the target group was not successful. Several photographers offering wedding photo shoots were approached but none of them was able or willing to meet for a feedback session.

*2.2. – An expert on start-ups or small businesses confirms that the business model developed is viable.*

Achieved. Julian Merten was willing to meet to discuss potential business models for monetizing the product. The conversation shed light on several fundamental flaws of the business models that were discussed. Accordingly, future work should attend these issue more thoroughly.

*2.3. – A potential customer is willing to buy the product.*

Not achieved. Several participants (70%) reported that they would pay money for a print of the product. However, the (for me) most relevant respondent, the expert on the target group, could not be asked. Accordingly, no reliable data could be gathered regarding this issue.

*3.1. – I want to take action based on a potential business idea.*

Achieved.

*3.2. – I discuss this project with others.*

Achieved. See section *My Learning Experience.*

## ADVICE

Throughout the project, lots of advice was given by the participants regarding the general concept of the product as well as its design specifics. Notably, the feedback given was often ambiguous as it differed widely in between participants. At some points, the opinions of several partakers were even directly opposing each other.

## MY LEARNING EXPERIENCE

Although the success in regards to the final product cannot easily determined, the learning experience of this project can be considered a success. Throughout the project I learned several lessons that were surprising to me and which I did not consider beforehand. As these lessons were mostly related to the procedural aspects of executing a project, I expect them to be easily transferable, making them valuable lessons that I can take with me to future endeavors.

The first surprise I experienced was the degree to which I underestimated the workload associated with the project. The plan developed at the very beginning of the module seemed to be plain and simple. The actual product to be designed also was mainly chosen due to its simplicity, making the project seem to be of an easily manageable scope. Already the first two weeks showed that this assumption was not true. The time needed to execute seemingly simple tasks such as adapting a design element of a prototype exceeded the anticipated time needed by far. To add to this, down-times were also underestimated. When being dependent on the participation of other persons one should always consider the time one cannot work because the other people involved do not have time at this specific moment.

Another lesson learned in this project was about the need for being flexible. The process I intended to use depended on the participant’s giving unambiguous feedback. I only noticed this when it was too late having received feedback pointing at different directions for the same product. This made it impossible for me to adapt the product in accordance to most or even all feedback at the same time in one product. If, however, I had implemented all the feedback, I had to create and manage an uncontrollable amount of prototypes. What would have helped would be an adaption of the process. In the future, I will ensure that my processes are flexible enough to allow for these adaptions if necessary.

An experience that was straightforward contradictory to my previous experience was my lacking success in recruiting an expert. Usually, whenever I reached out to other people in other organizations, including the higher ranking ones, I got a positive response. When contacting photographers, the previously successful experiences could not be replicated. This might be due to different priorities, responsibilities, and culture in the small business context. Still, whatever the reason is, this project showed me that dependence on third parties can always pose a risk to an endeavor. Accordingly, I will focus on these dependencies early on in following projects to ensure that no unforeseen complications arise.

Even though I failed in contacting outside experts, my prior philosophy that people are generally kind and helpful when simply being asked to help still is supported by this project. Many fellow students supported me in executing this project, some of them I did not even really know. At the beginning of this project I expressed concern about presenting an unfinished or even outright low quality product to people as this would act against my perfectionist traits. However, during this project, it turned out that the only person that felt uncomfortable when taking action or presenting an unfinished product was me. Others were happy to help improving the product and not judgmental.

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University of Twente

Processes of Change

Module 6: Learning by Doing

# Individual Project - Final Report

Andrei Cojocaru

August 28, 2018

# Contents

# 1 Introduction

The purpose of this document is to define the project target audience, goals, approach, and scope, explain my underlying personal development goals, and report the results of the project.

## 1.1 Change Overview

### 1.1.1 Target Audience

In considering which target audience I could best deliver value for, I realized that the most important factors in making this decision are accessibility (How easily can I reach and interact with this audience?) and familiarity (How well do I know this audience?).

I chose accessibility as a primary factor because I can't adequately assess my a priori beliefs about the audience's needs, behavior, and characteristics if I cannot reach the audience easily. Likewise, I chose familiarity with the target audience as a factor because it is impossible to construct useful hypotheses about an audience I do not know.

Based on these factors, I chose students at UT as my target audience. They are both very familiar and accessible to me as a fellow student, and acquiring students for interview is quite low-cost compared to other demographics.

I chose to segment the target audience between international students and Dutch students in order to better understand how this distinction affects their needs and behavior.

### 1.1.2 Current Situation

[redacted]

- [redacted]
- [redacted]
- [redacted]

[redacted]

[redacted]

1. [redacted]
2. [redacted]
3. [redacted]
4. [redacted]
5. [redacted]
6. [redacted]

[redacted]

### 1.1.3 Target Situation

[redacted]

[redacted]

## 1.2 Necessity for Change

[redacted]

[redacted]

[redacted]

[redacted]

# 2 Project Goals

## 2.1 Literature Review

[redacted][3] [redacted]

[redacted][4] [redacted]

- [redacted]
- [redacted]
- [redacted]

[redacted]

## 2.2 End Goals, Project Goals, and Changing Course

[redacted]

The following goals were initially set at the beginning of this project:

- [redacted]
  - **Specifically, interview at least 10 students within the allotted time, transcribe and code the responses**
- Provide an initial analysis of market conditions and an initial business model

- **Specifically, draw at least two major conclusions from the interview data, and put forward a finalized SWOT analysis and a finalized business model canvas with that in mind**

[redacted]

- [redacted]
- [redacted]
- [redacted]

Considering these insights, the value of [redacted] is questionable. Thus, I revisited the business model generation process, and a different idea struck me while I was considering the concept of circular economy. Presently, [redacted] Would it then be possible to make this a more sustainable process without increasing prices or significantly decreasing convenience?

An ancient and fairly obvious solution already exists: [redacted]

Based on this new business model, the following goals were established:

- Create a financial model to assess the feasibility and profitability of the business
- Further assess the competitive arena
- Collaborate with Novel-T's business development to gain further information, guidance, and external feedback

- Create a 'peer-reviewed' business model canvas
- Create a survey to verify and estimate demand from students

The survey mentioned in the final goal will take place during the university year, past the delivery of this report. Thus, only the form itself will be included as an annex.

# 3 Approach & Methodology

## 3.1 Interview

### 3.1.1 Data Gathering Methodology

All data was gathered from students through audio-recorded interviews in semi-structured form. The interview guide and interview process were designed in accordance with the principles outlined by Preece, Sharp, and Rogers[5]. In particular, special attention was paid to the informed consent and study information forms, as, according to the above, these help establish a professional relationship between the interviewer and interviewee.

The interview questions have been adjusted in response to feedback. I have also tried to prevent leading questions, e.g. "Do you use their [study associations'] services?" now precedes the question of "What [study association] services do you use?".

All interview recordings were transcribed to text and then destroyed. The transcripts were anonymized through the removal of individual identifying details such as names or addresses, in the interest of preserving participants' privacy.

### 3.1.2 Sampling

Non-probabilistic convenience sampling was employed as the primary sampling method, with a mixture of snowball sampling to gain more participants. The use of statistical methods and further rigor would be detrimental to the Lean iterative process, so the consequences of this sampling method should not be particularly damning.

### 3.1.3 Data Analysis

While initially planned, formal coding of interview responses was scrapped in lieu of a more informal analysis: Simply reading over the responses, gathering the main points and surprises, and then further discussing these with students off-the-record. This process was enough to effectively rule out the original business model and create an improved version.

## 3.2 Business Analysis & Execution

The business analysis consists of a SWOT analysis, a general outline of the business model using the business model canvas, a financial model, and also an examination of the competitive landscape.

For general execution, I sought feedback and assistance from Novel-T at the UT Gallery. I will further apply Lean methods (using The Lean Startup[8] as a guidebook) for customer interaction, feedback, and iterative MVP development in the future. However, anything outside of near-term data collection and analysis, initial conversations with possible partners, plus business analysis, was outside the scope of this project.

## 3.3 Survey

The survey is hosted on the SurveyMonkey platform, which allows easy data storage and analysis.

It consists of 7 to 9 simple questions. Most questions require the respondent to simply select an option, with only two involving text boxes. I've tried to keep it short, simple, and easy to answer in order to increase the likelihood of completion.

Demographic data such as gender, year of study, study programme, and nationality will be collected in order to better understand how these variables impact each individual's preferences and to potentially create a better customer segmentation in the future.

Ideally, the survey will employ clustered (by study programme) random sampling, though this requirement may have to be relaxed for the survey to be feasible in practice.

## 3.4 Approach Justification

According to Preece, Sharp, and Rogers, focus groups are best suited for social or community issues, and they elicit social responses. It is my belief that, while the [redacted] problem could be considered social in nature, consumer decisions occur at the individual level, and a group conversation may hamper the honest discussion of issues such as the participant's individual price sensitivity. Thus, I opted to conduct semi-structured one-on-one interviews instead of using focus groups.

Steve Blank[7] suggests using the business model canvas as an explicit way of specifying business hypotheses in all nine building blocks of a business. It would not be a stretch to generalize this to analytical tools such as PESTLE/SWOT. Hence, in order to make hypotheses and critical assumptions as explicit as possible, all of these tools were used for the business analysis.

I chose to use SWOT analysis because it draws attention to the strategic elements of the business (What can we do? What should we do? What shouldn't we do? Why?), as opposed to PESTLE analysis, which puts more emphasis on classification.

I chose the Lean startup methodology for its cost-effectiveness, its customer-first orientation, and its focus on learning, which parallels my personal development goals for this module.

Finally, I chose to do a survey to verify demand and price tolerance because it offers a higher sample size, which leads to more confident quantitative estimates.

# 4 Personal Development Goals & Progress

## 4.1 Overview

There is a well-known proverb which says that if you teach a man to fish, you've fed him for a lifetime. My own corollary is that your newly-minted fisherman will soon return needing to learn how to cook. Thus, only by teaching a man to teach himself can you truly feed him for a lifetime, and, in so doing, free yourself from further pestering.

On this basis, my personal development goals within the scope of this project have been to improve my self-management and my ability to learn independently. I chose these goals because I believe the most effective way to improve is by focusing on process, not outcome (e.g. "I want to become a better learner" rather than "I want higher grades this year"). This is logical: if you learn to teach yourself, you can teach yourself to fish, *and* cook.

## 4.2 Independent Learning

One of my main goals for this project was to become a better entrepreneur, to gain some experience in business 'design' and ideation, and to find a way to improve these skills without external help. I felt frustrated with my progress on this goal since long before the project began. I discussed this with my coach throughout our meetings. I explained that I felt like I was wasting my time, and progressing too slowly.

As it turns out, I had been completely focused on reading business books and academic theory without actually trying anything practical, and this was the main obstacle preventing me from achieving my goal. Even my initial project idea was a purely theoretical analysis, as opposed to practical application. This may seem obvious to an external audience, but tunnel vision can happen to anyone.

Another problem was that I threw every idea I had into the "won't work" bin, which prevented me from actually trying anything. Having a sane external evaluation of this process, along with some theoretical confirmation[2], helped me kill the habit, and so I became much better at ideation in a relatively short time.

With all this in mind, I redesigned my project to revolve around actually applying my knowledge rather than adding more droplets to the theory bucket. I speed-read some more practically-minded business books (everyone has a vice), created a 'prototype' business model based on the business model canvas[9], and went ahead to interview some prospective customers. Moreover, based on the results of these interviews and previous literature I've read, I came up with a business model that is both more profitable and more well-suited to the target audience. I collaborated with Novel-T to develop this further, and now I am in the process of using a survey to verify my assumptions.

While there is no guarantee that any one business will succeed, I have certainly improved my skill in coming up with unique business models and thinking about their practical implications, which will increase my probability of success in future ventures. On top of that, I've also eliminated my aversion to working with others. Thus, in this respect, I've achieved the process improvement I was aiming for.

As a final note: Paradoxically, I could not have come up with my current business model if I had, like in the past, concentrated on coming up with a business model. This was an idea that came up while I was reading a series of unrelated books and articles on various topics, like, say, strategy. This tells me that breadth can be at least as useful as depth in learning and creativity.

## 4.3 Self-Management

A recurring problem I noticed myself struggling with during the projects I work on is that of fluctuating motivation. It goes something like this: I'm very highly motivated and willing to put in a lot of effort to get the job done, until I start thinking that the project isn't going to succeed. Then I start becoming certain that the project will fail, and so I'm not willing to put in any effort at all. Eventually, I start thinking the project might succeed once more, and so the cycle goes on forever. Clearly, this sort of motivational roller coaster isn't great for overall performance and productivity.

During the course of this project, with the help of my coach, I was able to find an effective solution for the problem: measuring progress. My dips in motivation always emerge when I can't see progress being made despite my efforts. If I can check on my progress at a moment's notice, I'm much more likely to stay highly motivated consistently.

Of course, "measure your progress" is more easily said than done. Suppose one's goal is to become wiser - how, then, could this be measured? In struggling with similar questions, I've found two solutions:

Firstly, assuming that there is some measure of incremental progress from each amount of time spent on the task, the time spent on achieving a goal is a good proxy for measuring one's progress. For this, I've experimented with tools such as RescueTime to good effect.

Secondly, during slower days, it is especially important to make small steps forward. Consistent progress, even in very minor ways, has been critical to preserving my motivation.

I've noticed that similar motivational problems arise when a deadline is close and the project has hardly moved forward. In these situations, perseverance is the only solution I can offer. I had a similar experience during this project: The first deadline was less than a week away, and I had absolutely nothing in the way of a project or even a project idea. Coping with such a setback is an art in and of itself. Eventually, through practice, one painfully learns how to extract water from stone.

Finally, the critical thread that links motivational problems together, in my view, is self-image, and the way one copes with setbacks and rejection. Adequate self talk is one of the most effective motivational strategies I discovered during this project. As my coach helpfully pointed out, my habit of hedging by always refusing to say ”I'm ready”, ”I'll pass”, or ”I think it'll work out” is a motivational minefield. I took some time to research[10] this further, and have started to re-evaluate the way I think about my future prospects. I cannot say for sure whether this has affected my motivation during the later half of my project in a significant way, but I can definitely say it hasn't been an impediment. I have also started to experiment with the idea of interrogative self-talk, which has been shown[11] to be more effective than declarative self talk (i.e. ”Will I do it?” versus ”I will do it”). All things considered, I feel more consistently confident now than I did before.

### 4.4 Conclusion & Summary

Overall, during the course of this project, I've learned a great deal about myself, about learning, about entrepreneurship, and about being more effective and maintaining motivation. In summary:

- Theory exists to be tested and reinforced through practical application, not silently collected
- It's wasteful and unproductive to be self-critical during creative activities: evaluation can come later
- In learning and creativity, breadth of exploration is at least as important as depth
- Measuring progress is vital for preserving motivation
- Small steps forward every day keep one afloat during difficult times
- When in doubt, persevere
- High expectations of oneself and others lead to increased performance; low expectations decrease it

## 5 Business Analysis

The financial model along with the SWOT analysis and Business Model Canvas diagrams will be provided as additional materials alongside the report.

The business model and survey format were both ironed out in collaboration with Novel-T. Their feedback was also incorporated into the financial model.

## 5.1 Business Model

The business model consists of [redacted]

[redacted]

[redacted]

## 5.2 Financial Model

The financial model is a simplified representation of the local market used to forecast earnings and profitability under varying economic conditions. Moreover, it offers a good way to pinpoint critical variables and trade offs. For instance, [redacted]

Under reasonably conservative conditions, assuming a count of 1000 active customers, the model leads to an estimate of [redacted] yearly revenue, [redacted] yearly net income, [redacted] profit margin, and approximately [redacted] return on assets (valued at cost).

## 5.3 SWOT Analysis

Using SWOT as a fast and loose strategic analysis tool has led to the discovery of a number of interesting opportunities for increasing profitability. For example, [redacted]

A more exhaustive look at the SWOT analysis will be delivered as an annex to this report.

## 5.4 Competitive Landscape

### 5.4.1 Local Competition

[redacted]

[redacted]

[redacted]

[redacted]

### 5.4.2 International Competition

[redacted]

[redacted]

# 6 Results

## 6.1 Project Results

Barring the canceled first goal (only 5 students were interviewed), each stated goal was completed during this project. The end result is a thoroughly analyzed, test-ready business model with a set of future strategic considerations and a fairly robust financial model.

## 6.2 Next Steps

In continuing this effort outside of the Honours programme, I will take the following steps within the near future:

1. Verify and estimate demand via survey

2. [redacted]

3. Develop and offer a low-cost MVP to a 'test sample' of students

4. Find a financing solution, assuming the prior three tests have positive outcomes

# 7 References

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[5] Helen Sharp. Yvonne Rogers. Jenny Preece. (2007). *Interaction Design: Beyond Human-Computer Interaction*; Second Edition. John Wiley & Sons.

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# Appendices

## Interview Guide

Created based on the very helpful Javelin interview template[1].

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

# Consent Form for Student Market Study

| ***Please tick the appropriate boxes*** | **Yes** | **No** |
|---|---|---|
| **Taking part in the study** | | |
| I have read and understood the study information dated 19/06/2018, or it has been read to me. I have been able to ask questions about the study and my questions have been answered to my satisfaction. | ☐ | ☐ |
| I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions and I can withdraw from the study at any time, without having to give a reason. | ☐ | ☐ |
| I understand that taking part in the study involves participating in an audio-recorded interview, and that the recording will be transcribed as text and then deleted. | ☐ | ☐ |
| **Use of the information in the study** | | |
| I understand that the information I provide will be used for market research. | ☐ | ☐ |
| I understand that personal information collected about me that can identify me, such as e.g. my name or where I live, will not be shared outside of the study team. | ☐ | ☐ |
| I agree that my information can be anonymously quoted in research outputs. | ☐ | ☐ |
| **Consent to be Audio/video Recorded** | | |
| I agree to be audio/video recorded. | ☐ | ☐ |
| **Future use and reuse of the information by others** | | |
| I give permission for the anonymized interview transcript that I provide to be archived so it can be used for future research and learning by the study team. | ☐ | ☐ |

**Signatures**

______________________ ______________________ _________

Name of participant

Signature Date

I have accurately read out the information sheet to the potential participant and, to the best of my ability, ensured that the participant understands to what they are freely consenting.

___________________________ ____________________ _________

Researcher name Signature Date

# Survey Outline

**1.** What is your gender?

**2.** What is your nationality?

**3.** What university year are you in?

**4.** What is your study programme?

**5.** [redacted]

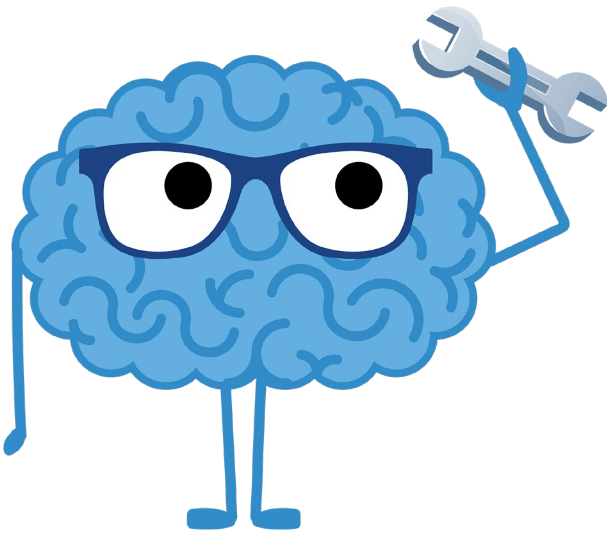
**6.** [redacted] - Yes, go to 7A; no, go to 7B.

**7A.** [redacted]

**8A.** [redacted]

**9A.** [redacted]

**7B.** [redacted]



# HELPING PUPILS TO DEVELOP THEIR OWN LEARNING METHOD

A Process of Change

K.S. Goeree (s1797964)
University of Twente | Honours Program | Processes of Change | 06-07-2018

# ABSTRACT

**Introduction and goals**: In order to reach full academic potential, it is important for secondary school pupils to have good school results. During the last few years, a decline is seen in the Dutch secondary school results, which makes it harder for pupils to reach their potential. Therefore this report proposed a change intervention which focused on helping pupils to develop their own learning method and therefore study more efficiently. The intervention aimed to increase the participating pupils' school results and to ensure that the pupils had the feeling that they study more efficiently.

**Intervention**: The change intervention combined Fogg's Behavioural Model (FBM) of persuasive change and Edgar Schein's model of transformative change to ensure that the change would happen and that the change would be lasting. The intervention was a course consisting of two meetings and one week between the meetings. The course was designed using Kolb's model of experiental learning. During the course, various learning techniques and time management techniques were covered.

**Results**: There was an increase in school results of 0.10037 (95%-CI -2.04492, 2.24566) with a significance level of 0.859. Therefore there was no significant increase in the participating pupils' school results. The subjective goal was measured with a questionnaire and oral evaluation. Both indicated that the pupils felt that they had been able to study more efficiently, they felt more able to develop their own learning method in the future and that they were really enthusiastic to try new things.

**Conclusion**: The objective goal has not been met but the subjective goal has been met. Overall, within the limited time and the limited number of participants, the intervention seems to have had a reasonable effect.

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# INTRODUCTION

For some years now, a decline in the Dutch secondary school results can be seen (Inspectie van Onderwijs 2018). This is especially the case in the subjects mathematics and natural sciences. The decline in the secondary school results means that the Netherlands no longer holds a top position in the world but belongs to the sub-top. We see multiple trends relating to the declining school results. First of all, the school results vary between schools. This difference can not only be explained by differences in the pupils' backgrounds: schools with pupils from parents with an academic background differ. It is unclear what causes the differences between schools (Inspectie van Onderwijs 2018). The second trend that can be observed is the low motivation of pupils in the Netherlands. Considering the motivation to learn, the Netherlands has one of the lowest scores compared to other countries (OECD 2016).

However, secondary school is an important time for pupils, especially the last two years. The school results of the last two years determine which educational program someone will be able to follow after secondary school. Some programs require specific subjects or grades to be accepted and some studies have an admission procedure (Rijksoverheid n.d.).

Due to their brain structure, adolescents have a hard time to concentrate and to resist distraction compared to adults. This makes it harder for them to focus on, for example, schoolwork. To put it simply: adolescents do not have the same mental capacities as adults (Hill 2010). However, according to Pearce Stevens (2014) adolescence is "a transitional stage of physical and psychological development that begins at the onset of puberty […], and ends with adulthood."(Pearce Stevens 2014). This means that during adolescence, adolescents increase their cognitive control skills to be able to resist distractions and stay focused (Nelis and van Sark 2014).

When the adolescence-brain already experiences difficulties in resisting distractions, one can imagine that adolescents nowadays have a hard time. In our modern society, there are multiple distractions, mainly coming from our electronics. In 2012, 86.1 percent of the adolescents owned a mobile phone or smartphone. In 2017, this number had been increased to 98.2 percent, meaning that almost every adolescent owns a mobile phone or smartphone (Centraal Bureau voor Statistiek 2018). In a youth panel from EenVandaag (2017) 5.000 adolescents were asked how much time they spend on their phone each day. 715 adolescents filled in the questionnaire. They were representative for four variables, namely age, gender, educational level and distribution across the country. According to this research, 60 percent of the adolescents spends more than three hours a day on their phone and 11 percent of the adolescents spends more than seven hours a day on their phone. When asked if they thought they used their phone too much, 49 percent of the adolescents agreed, 47 percent was happy with their usage and 2 percent thought they did not use their phone enough. And when asked if the adolescents thought they were addicted to their phone, 25 percent responded with "yes" (EenVandaag 2017).

A phenomenon connected to the increasing ownership of phones is the rise of 'media multitasking'. Media multitasking is defined as "engaging in more than one media activity at a time"(Wallis 2010). There are two forms of media multitasking. The first form is, for example, watching television while sending text messages. The second form is, for example, watching YouTube while studying (Wallis 2010). Studies have consistently shown that multitasking, task switching or distraction have an immediate harmful effect on cognitive performance. People who multitask make more errors and need more time to complete a task (George and Odgers 2015). Research among college students shows that there is a negative relationship between hours spend on the Internet and grade performance: the students who spend more time on the Internet received lower grades (Englander, Terregrossa, and Wang 2010).

From the situation described above, the urgency from the situation can be seen. Research suggests that the use of this technology (Englander, Terregrossa, and Wang 2010) and the associated multitasking (George and Odgers 2015; Wallis 2010) is negatively related to school performance. Combined with the increase the ownership of technology among adolescents (Centraal Bureau voor Statistiek 2018), it logically follows that school results are declining in secondary education (See figure 1: 'Schematic Overview of the Causes of the Decline in School Results'). In the Dutch school system, the study someone can do, is dependent on the secondary school results (Rijksoverheid n.d.). Consequently, pupils have less choice in their study and it becomes harder for them to reach their full (academic) potential.

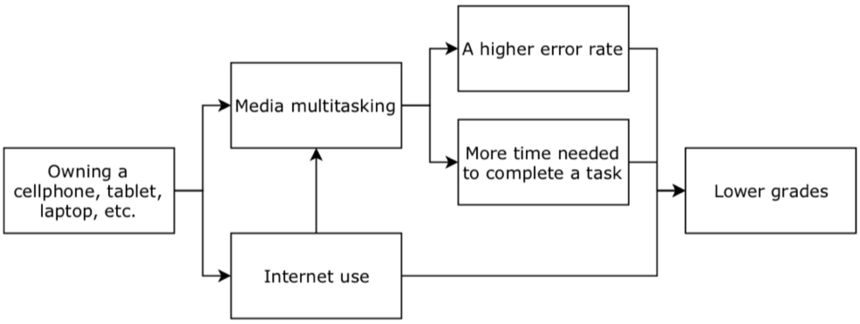

FIGURE 1 SCHEMATIC OVERVIEW OF THE CAUSES OF THE DECLINE IN SCHOOL RESULTS

In this report, a solution is created in the form of a change intervention. The change intervention has been researched to test if the change intervention has the intended effect. The target group of this change intervention consists of secondary school pupils, especially pupils in the last two years of secondary school.

# CHANGE GOALS

Generally, parents want their children to be able to study whatever they want and become whoever they want to be as long as they are happy (Nelis and van Sark 2014). In order to study whatever a pupil wants, they need to have sufficient results for that particular study (Rijksoverheid n.d.). But, as is explained in the previous chapter, pupils are receiving lower grades (Inspectie van Onderwijs 2018). This shows the need for a change intervention. Based on the introduction, it can be easy to say that we just abandon the phone. However, the EenVandaag youth panel shows that the majority of the adolescents (73%) think the smartphone is an enrichment in their life and that 63 percent of the adolescents does not try to use their phone less (EenVandaag 2017). Therefore, the goal of the change intervention will not be to abandon the phone, but rather to raise the school results through another solution. This solution is found in learning techniques, which make studying more efficient. By studying more efficiently, instead of harder, the pupils will still have enough, or maybe even more, leisure time to spend, for example, on their phone. The change intervention that is proposed in this report is a course in which pupils learn how to develop their own learning style to study more efficiently.

The ultimate goal of the change intervention is, just like the parents want, that every pupil reaches their full academic potential. However, this is a big goal and not feasible within the scope of one intervention. Therefore, a smaller, more feasible goal has been formulated. This project goals is as followed: "*The change intervention results in a significant raise in the participating pupils' school results. School results are measured with the grades.*" For this project, we will compare the results of the previous 'toetsweek' (week of tests) with the results of the next 'toetsweek'. Figure 2: 'Schematic Overview of How the Project Goals and Ultimate Goal Relate to Each Other' illustrates how the various goals and aims mentioned relate to each other.

Next to this objective project goal, I want to add a subjective project goal: "*The pupils participating in the course, have the feeling that they study more effectively and efficiently.*". The pupils' perception of their effectivity while studying, will be measured with questionnaires (see Appendix A).

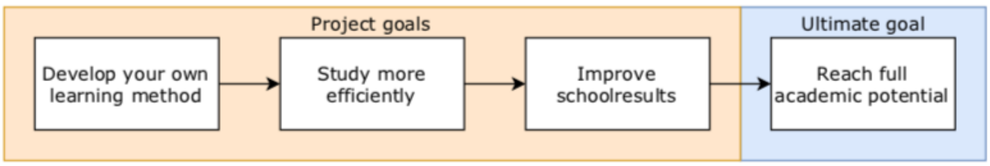


FIGURE 2 SCHEMATIC OVERVIEW OF HOW THE PROJECT GOALS AND ULTIMATE GOAL RELATE TO EACH OTHER

According to Kelman (1958) there are three different processes of influence: compliance, identification and internalization. Compliance is when an individual accepts influence only because he hopes to achieve a favourable reaction from another person or group, usually the change manager. When compliance is reached an individual does not believe in the content of the change in behaviour, but nevertheless adopts the behaviour to gain rewards. Identification occurs when an individual accepts influence because he wants to establish/maintain a satisfying relationship with another person or group. The reason to adopt the behaviour is because it is associated with the desired relationship. Internalization occurs when an individual accepts the influence because he finds the content of the induced behaviour intrinsically rewarding. Behaviour that is adopted through internalization tends to be integrated with the existing values (Kelman 1958). During the course, the goal is to reach 'internalization' because only then the change is long term and will not reverse as soon as the external force has disappeared. The reason I want the change to be long term is that only then the pupils will keep learning efficiently and will be able to get better school results, and reach full academic potential. Therefore the third project goal is: "*Reach the internalization stage to get a long-term change*."

# CHANGE APPROACH

Learning is a process in which knowledge is acquired through experience. The learning can lead to a change in behaviour. This implies that learning is not just gaining new knowledge, but it also requires the application of the new knowledge (Cameron and Green 2015). This definition of ‘learning’ applies well to this change intervention: during the course, the pupils will gain knowledge of certain learning techniques and time management systems, but they will also learn how they can apply this knowledge in practice and will be encouraged to do so.

The change approach that will be used in this project consists of a combination of two change approaches: Fogg’s Behavioural Model (FBM) of persuasive change (Fogg 2009) and Edgar Schein’s model of transformative change (Schein 1996).

## FOGG’S BEHAVIOURAL MODEL OF PERSUASIVE CHANGE

FBM provides a systematic way to analyse the underlying factors of behavioural change. B.J. Fogg (2009) identified three factors: motivation, ability and triggers. According to this theory, behavioural change can only happen when there is sufficient motivation, sufficient ability and an effective trigger. Without an appropriate trigger, the desired behaviour will not occur, not even when motivation and ability are high. As figure 3: ‘Fogg’s Behavioural Model’ shows: motivation and ability are transferable. This means that triggers can also be successful when motivation is low, but ability is high, vice versa. Ideally, you have a high ability and a high motivation because then the trigger can be less effective (Fogg 2009). The orange line in figure 3: ‘Fogg’s Behavioural Model’ depicts the behaviour activation threshold: if the combination of ability and motivation is not sufficient than the trigger will not have effect (Fogg 2009).

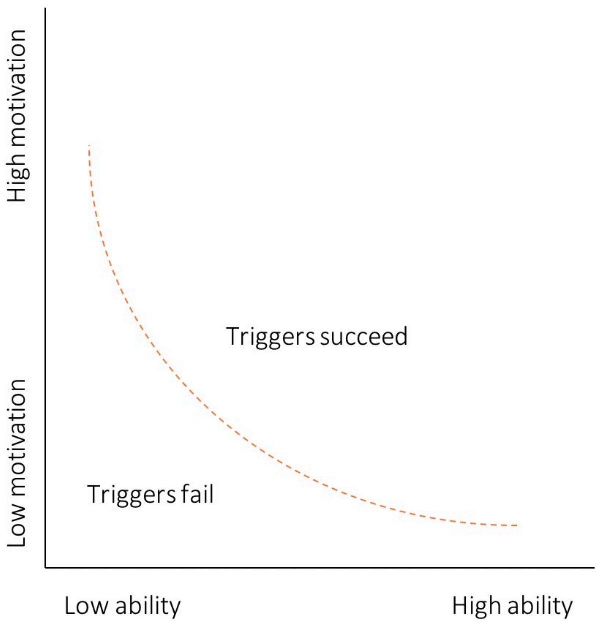


FIGURE 3 FOGG'S BEHAVIOURAL MODEL

Using the FBM, a persuasive change can be designed. The goal of a persuasive design based on FBM is to increase motivation, increase ability and provide the right triggers for the behaviour. Each of the three aspects of FBM consists of different elements. The aspect of motivation consists of three core motivators, each with two sides. These motivators are pleasure-pain, hope-fear, social acceptance-rejection. The first motivator, pleasure-pain, is a primitive response to a situation and therefore it does not have the preference to use in the change intervention. The second motivator, hope-fear, is a characterized by anticipation of something good (hope) or bad (fear). Fogg’s prefers this motivator because it is the most ethical and empowering motivator in his opinion. The last motivator is the social dimension: we want to be socially accepted and avoid social rejection (Fogg 2009). During the change intervention, the second motivator will be used. I want to increase the anticipation of something good happening, namely better grades and more leisure time. But at the same time, during the disconfirmation, which will be explained in ‘Edgar Schein’s Model of Transformative Change’, I will also use the motivator fear. The creating of motivation makes the change more intrinsic motivated. This links to the third project goal of reaching internalization.

To increase someone's ability in persuasive design does not mean teaching people new things rather it is making behaviour easier to do. There are six elements which define simplicity: time, money, physical effort, brain cycles (thinking deeply and about new things is not simple), social deviance (going against the norms) and non-routine (Fogg 2009). During this change intervention, I will focus mostly on the time and non-routine elements to make the behaviour more simple. By implementing the various study techniques the pupils can discover how they learn best and that way learning will require less time. Also, implementing the learning techniques will not cost anymore time. The other element, non-routine, I will try to implement by helping the pupils to create their new routine. Once a routine is created, it will be easier to show the desired behaviour.

Lastly, to set a certain behaviour in motion, there is a trigger necessary. Fogg has identified three forms of triggers: sparks, facilitators and signals. A spark is a trigger with a motivational element. These kind of triggers are especially useful when there is a lack of motivation to change. A facilitator is a trigger which tells the user that the change is easy to do and that it does not require a resource that the user does not have. This trigger is especially useful when the user lacks ability. The last trigger, signals, is a simple reminder. It does not have the element of motivation or simplification. This trigger is useful when people do have to ability and the motivation to perform the behaviour (Fogg 2009). During the course, I want to spend time to think about what kind of trigger the individual pupils need to make the change real for them. It will probably differ between the individual pupils what form of trigger they need. I also want to encourage using superimposing triggers

## EDGAR SCHEIN'S MODEL OF TRANSFORMATIVE CHANGE

Edgar Schein's model of transformative change includes three stages: unfreezing, cognitive redefinition and refreezing (Schein 1996).

In the unfreezing stages the motivation to change needs to be created. According to Schein, all forms of learning and change start with some form of dissatisfaction or frustration with the current situation. Schein calls this 'disconfirmation', because the current situation disconfirm our expectations or hopes. However, we can ignore disconfirmation and in order to change we first must accept the disconfirmation. If the disconfirmation is accepted, it is followed by 'survival anxiety', the feeling that if we do not change, we will fail to meet our needs or achieve our goals (survival guilt). However, we, typically, do not accept the disconfirmation because of 'learning anxiety'. Learning anxiety is the anxiety associated with learning something new. If you want people to change you need to create some degree of psychological safety so they can overcome their learning anxiety (Schein 1996).

I will start the course by asking the pupils why they have decided to participate in the course. Since the program is voluntarily, the pupils will already have some need to change/improve their current study methods. However, I really want them to become aware of this and to become aware of the disconfirmation. Schein explained that we, typically, do not accept the disconfirmation, because of 'learning anxiety' (Schein 1996). Therefore, I want to create some degree of psychological safety. Psychological safety can be defined as the feeling of safety within a team to take risks while facing the chance of being seen as ignorant, incompetent, negative or disruptive (Edmondson 1999). To build psychological safety, Amy Edmondson recommends three things: a) frame the work as a learning problem, not as an execution problem and hence create the rationale for speaking up, b) acknowledge your own fallibility, hence create more safety to speak up, and c) model curiosity, ask questions and seek to understand. Hence, you create the necessity for people to speak up (TEDx Talks 2014). I will mostly make use of the second and last factors: I will ask whether the pupils understand everything and whether they have things they might want to add, or things that I have missed.

The second stage is characterized by learning new concepts and new meanings for old concepts (Cameron and Green 2015). This is directed through the imitation of and identification with role models and scanning for solutions followed by trial-and-error learning. Cognitive redefinition can only happen when someone has 'unfrozen' and therefore is open for new information. Someone is more likely to listen and accept new (meanings for) concepts when they learn the concepts from someone else. This is 'imitation and identification with role models'. Mentoring programs are based on this principle. Another way of directing cognitive redefinition is through scanning for solution. This means that someone will gain a lot of information and when this person feels psychological safe, spontaneous an insight can occur that provides the solution or redefinition. Change agents often rely on these insights because they believe that the best solution is the one that the learner has invented themselves. After the redefinition, the new behaviour is tested through a process of trial-and-error. To make the refreezing stage easier, it is best to encourage scanning for a solution instead of identification because scanning for a solution provides a solution which is closer to the personal situation of the learner (Schein 1996). Therefore, I will provide the pupils with information but I will encourage them to think for themselves which parts of the information they would like to use. This also helps to reach internalization because the pupils can choose the change that they will find intrinsically rewarding.

Lastly, the refreezing-stage is the internalizing of new concepts and meanings through the incorporation into self-concept and identity and the incorporation into ongoing relationships. It is therefore important that the new behaviour is congruent with the current behaviour and personality of the learner (Schein 1996). As explained above, it is for this reason, that I will encourage the pupils to choose for themselves which techniques they would like to use. Of course, I will help them in choosing. It is also for this reason that I will ask the pupils in the beginning of the course what their current way of learning is.

## THE COURSE

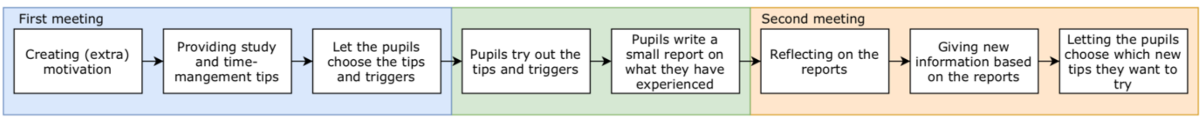


FIGURE 4 SCHEMATIC OVERVIEW OF THE STEPS IN THE COURSE

The change approaches, which are discussed above, will be used to make the change happen during the course. Kolb's model of experiential learning, which will be explained later, will be used to structure to course. The goal of the intervention is that the pupils will learn how they can study more efficiently. The course will consist of two meetings. During the first meeting, the first two stages of Kolb's model of experiential learning, which will be explained below, will be covered. The third stage will be experienced during the time between the two meetings. Finally, the last stage will be covered during the second meeting. Figure 4 gives a schematic overview of the steps in the course. Figure 5 shows how the various steps in the course relate to the two change approaches used, FBM and Schein's model of transformative change. Both figures can also be found in Appendix B.

During the first meeting I will use Victor de Conincks 'Heart-Head-Hand'-method (Coninck, de 2017). I will start the meeting by the disconfirmation which is very personal and I will also include some personal stories in this part, this is the 'Heart'-part. After this, I will continue the 'Head'-part and explain various study tips and time-management tips. These will be explained in 'Theoretical Concepts'. Afterwards, the 'Hands'-part will be covered in 'Practical Experimentation', during this stage of the course, the pupils will think how they can bring the 'Head'-part in practice. The MS PowerPoint that is used during the first meeting is included in Appendix C.

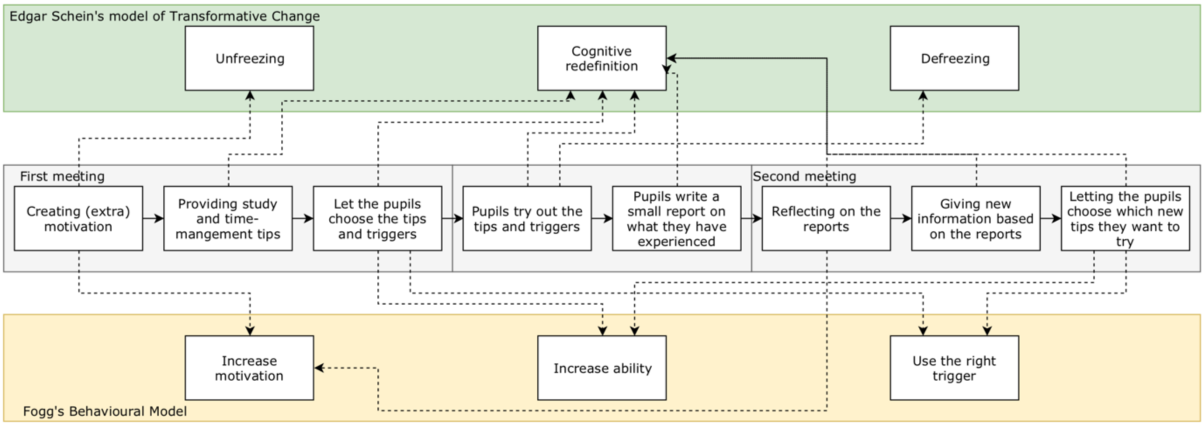


FIGURE 5 OVERVIEW OF HOW THE CHANGE APPROACHES RELATE TO THE COURSE

As mentioned before, David Kolb's model of experiential learning will be used. In this model (see Figure 6: 'Kolb's Model of Experiential Learning') the process of learning consists of four stages: abstract hypotheses (theoretical learning), active testing (practical experimentation), concrete experience and reflective observation (Cameron and Green 2015; Kolb and Kolb 2005). Every individual has its own sets of preferences or styles in the way they learn and can get stuck within their preference (Cameron and Green 2015). However, to fully be able to learn, it is important to go through all the steps in the process (Kolb and Kolb 2005). During the course, the pupils will go through the different stages in the learning cycle. The first stage will be the theoretical concepts, where the pupils will gain knowledge (Cameron and Green 2015) about various learning and time management techniques. The second stage is the practical experimentation. During this stage the pupils will relate the knowledge to their own circumstances (Cameron and Green 2015) and try to decide which learning techniques they will try. The next stage is the concrete experience, which is characterized by the application of the knowledge (Cameron and Green 2015). And finally, during the last stage, the pupils will reflect on what they learned, what still needs improvement and how they will continue to learn.

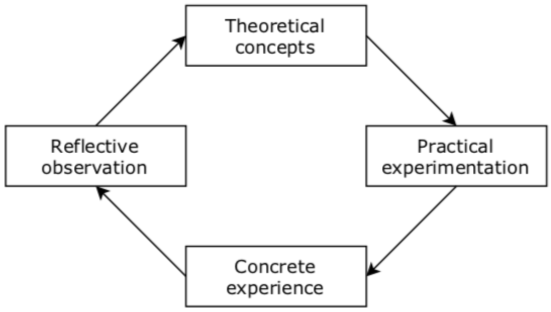


FIGURE 6 KOLB'S MODEL OF EXPERIENTIAL LEARNING

## THEORETICAL CONCEPTS

The first stage, the theoretical concepts, will consist of the explaining of a few techniques to learn more efficiently. Because of the limited time the pupils have to implement and try the different techniques, I want the techniques to be close to the way they are already studying for their tests and which complement their current system. With that in mind, I have chosen five different techniques, which, in my opinion, complement the current way the pupils study and complement each other. Roughly, the different techniques can be divided into two categories: study tips and time management. I have two study tips and three time-management tips.

The first study tip is to learn the same information in a variety of ways. According to Willis (2008) different ways of obtaining information stimulates different parts of the brain. The more parts of the brain are stimulated, the more likely it is to fully understand and retain information. Therefore, it is important to use different ways of obtaining knowledge. The pupils are already doing this partly: they have to follow lectures, make homework and read the textbook. By making them aware of this and stimulating them to try extra ways of obtaining information, for example, watching a YouTube video on the topic, making notes during the lecture or teaching someone else, the pupils will learn more efficiently.

TABLE 1 OPTIMAL INTERVAL RANGES

| *Time to test* | *First study interval* |
|---|---|
| 1 Week | 1-2 Days |
| 1 Month | 1 Week |
| 3 Months | 2 Weeks |
| 6 Months | 3 Weeks |
| 1 Year | 1 Month |

The second study tip is using spaced learning. Spaced learning is learning new information by studying the material with time intervals between multiple study periods (Weidman and Baker 2015). A meta-analysis of 183 articles, showed that spaced learning is consistently preferred over learning information without significant intervals (Cepeda et al. 2006). Herman Ebbinghaus showed the power of spaced learning by trying to learn two lists of twelve nonsense syllables. He learned the first list in two days: the first day he needed 68 repetitions and the next one seven in order to recite the list perfectly. He learned the second list spaced out over three days. For the second list, Ebbinghaus needed 38 repetitions (Carey 2015). In his book "How we learn: The surprising truth about when, where and why it happens", Benedict Carey provides a table to indicate the optimal interval ranges for spaced learning taking into account the test date (see table 1: Optimal Interval Ranges). If the test is in one week, the second study session should be one or two days later. A third study session should follow the second study session also one or two days later. If preferred, there can also be a study session the day before the test (Carey 2015). The spaced learning can easily be combined with the first study tip: the pupils can use a different way to obtain the material each study session.

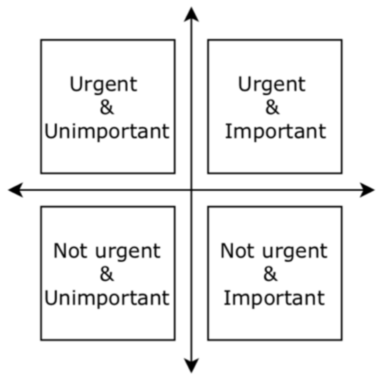

FIGURE 7 MATRIX OF THE EISENHOWER METHOD

The first time-management tip is making a list of all the things that need to be done and prioritize them. Here, I want to use the Eisenhower Method combined with the Getting Things Done (GTD) principle of splitting up bigger tasks into smaller ones. According to the Eisenhower Method, there are four kinds of tasks, which can be displayed in a matrix (see figure 7: 'Matrix of the Eisenhower Method'). Important and urgent tasks need to be done immediately and you have to do them personally. Tasks which are unimportant but urgent are to be delegated to someone else. The important but not urgent tasks do not have to be done immediately but you assign an end date and plan them. Lastly, there are tasks which are neither important nor urgent. To put it simply, you never do these tasks (Zakelijk Succes Academy n.d.). I want to combine this way of categorizing tasks with one of the GTD principles, namely splitting a big task up in smaller tasks (Allen 2015). Because a test in secondary school usually consists of multiple topics and assignments, it can be useful to specify what exactly needs to be done and assign a different urgency and importance to the different tasks within the big task 'Study for this test'.

The second time-management tip is to plan what you are going to do and when you are going to do it, or in other words use 'time-boxing. For this I want to use Neil Fiore's method from his book Now Habit. Fiore recommends to 'unschedule' your calendar. This means that instead of starting with planning the things you have to do, you start by planning your leisure time. Fiore recommends to plan one hour of relaxation each day and one day off each week. Also, committed time like eating, sleeping, etcetera you plan first. This way, you know exactly how much time you have left for work. Fiore suggests to record what you do, or in other words you only put things on your calendar once you have done them instead of when you want to do them (Fiore 2007). However, Johnson (2008) recommends to plan the things you want to do in the open time slots. In order to do this you first need to identify how much time each specific task, that you want to get done, will take. After you identified the time needed, you can fill up the open time blocks with the task. By setting up a specific time for a specific task you defeat Parkinson's Law: "Work expands to fill the time allotted". Parkinson's Law means that if you set no end time, your work will continue on (Johnson 2008).

The last time-management tip is the Pomodoro Technique. The Pomodoro Technique is a famous way to stay focused on the task at hand and was designed by Francesco Cirillo, a widely recognized expert on time management. The Pomodoro Technique divides the day in circles of 30 minutes. Each circle you work for 25 minutes on one task with full, undivided attention. After the 25 minutes of working, you have a five minute break and then the next circle starts. After four circles, you have a fifteen to thirty minute break (Cirillo n.d.).

## PRACTICAL EXPERIMENTATION

During this stage of the Kolb's model, the pupils will relate the knowledge of the various techniques to their own situation and will decide which techniques they would like to try in the following week. I want to encourage the pupils to choose at least one study tip and one time-management tip to focus on in the week after the first meeting. If the pupils want to choose more tips to try, or integrate the tips, then that would also be possible; I do not want to limit them.

After choosing the tips they want to focus on, I will help the pupils to think of possible triggers to reach the desired behaviour. This is in line with FBM. During the course, I want to spend time to think about what kind of trigger the individual pupils need to make the change real for them.

I do not just want to spend time *thinking* about the implementation of the change but I also want them to *act*. When people commit to a certain change, you can ensure that that change is long lasting. This commitment usually takes the form of an active step. One form of such an active step is to write the change down. (Cialdini 2016). Therefore, I want the pupils to fill in a form (see Appendix D). The form consists of an overview of the study and time-management tips and has options to write down what the pupil will do and what triggers they need.

If the pupils would like to, I can help them with already implementing some tips, for example by helping them make a day-plan using the 'time-boxing' tip.

## CONCRETE EXPERIENCE

During the week following the first meeting, the pupils have to opportunity to implement the techniques they have chosen. By making use of the triggers, the behaviour will be encouraged during the week.

## REFLECTIVE OBSERVATION

During the last meeting, the pupils will reflect on how they have experienced the week of trying the techniques. To be able to fully prepare for this meeting, I will ask to the pupils to write a small report of 500 words on what difficulties they have experienced, what they thought was nice and what they still want to learn. Based on these reports, I will identify new techniques, that might be useful for the students to identify how they can improve their learning method. During the meeting I will start by discussing the pupils' experiences with them. After the reflection, the circle of Kolb's model of experiential learning is finished and we will continue with theoretical concepts. Just like in the first meeting, I will provide information on some learning techniques tailored to the pupils' need and afterwards, the pupils will decide which techniques they would like to try and which triggers they need. However, I will also show the pupils how I came up with the new learning techniques: the things I based my choices on and how you can find easily accessible new tips.

# RESULTS AND CONCLUSIONS

This project had one objective goal and one subjective goal. The objective goal was: "*The change intervention results in a significant raise in the participating pupils' school results. School results are measured with the grades.*" And the subjective goal was: "*The pupils participating in the course, have the feeling that they study more effectively and efficiently.*"

## THE OBJECTIVE GOAL

The objective goal was measured by comparing the pupils' average grade from their last 'testweek' before the course with the average grade from the 'testweek' after the course. The descriptive analyses of the grades can be found in figure 8: 'Descriptive Analysis'. The sample group consisted of three participants (N=3). The average grade from the testweek before the course (Grades_1) was 6.4533 with a minimum of 5.22, a maximum of 7.96 and a standard deviation of 1.37. The average grade from the testweek after the course (Grades_2) was 6.6356 with a minimum of 6.07, a maximum of 7.11 and a standard deviation of 0.53.

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Grades_1 | 3 | 5.22 | 7.96 | 6.5352 | 1.37081 |
| Grades_2 | 3 | 6.07 | 7.11 | 6.6356 | .52804 |
| Valid N (listwise) | 3 | | | | |

FIGURE 8 DESCRIPTIVE ANALYSIS

The average grades were compared by performing a Paired Samples T-test using IBM SPSS statistics 24.0. The output of this test can be found in figure 9: 'Output of the Paired Sample T-test'. There was a difference between the two average grades, namely the average grade from after the course was 0.10 higher than the average grade from before the course. However, the significance level of this difference was 0.859. Therefore the course has not caused a significant increase in school results.

**Paired Samples Statistics**

| | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Pair 1 | Grades_2 | 6.6356 | 3 | .52804 | .30486 |
| | Grades_1 | 6.5352 | 3 | 1.37081 | .79144 |

**Paired Samples Correlations**

| | | N | Correlation | Sig. |
|---|---|---|---|---|
| Pair 1 | Grades_2 & Grades_1 | 3 | .975 | .141 |

**Paired Samples Test**

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | 95% Confidence Interval of the Difference | | | | |
| | | Mean | Std. Deviation | Std. Error Mean | Lower | Upper | | | |
| Pair 1 | Grades_2 - Grades_1 | .10037 | .86360 | .49860 | -2.04492 | 2.24566 | .201 | 2 | .859 |

FIGURE 9 OUTPUT OF THE PAIRED SAMPLE T-TEST

According to the Paired Samples T-test, the objective goal of this change intervention has not been reached. However, it must be said that the participation number was really small and to fully be able to judge whether the course is effective in reaching the objective goal the sample group should be bigger. Another issue with the intervention is that it took place within one and a half week. This is not enough time to see any big changes because the pupils should have the time to develop their learning method.

Another limitation involved in the judgement of the objective goal is that there was no control group to which the intervention group could be compared. Therefore, it is not possible to know whether the increase in the grades is caused by the course or is coincidence.

Because of the reasons stated above, I view the objective goal as neither met or unmet.

## THE SUBJECTIVE GOAL

The subjective goal focused on the pupils' perception of the effectiveness of the course. To be able to judge whether the course met the subjective goal, the participants were asked to fill in two questionnaires. I told them that if they wanted to add some notes they could write it down on the paper of the questionnaire.

The first questionnaire focused on the baseline and its purpose was to give some perspective on the pupils' need to change. The participants all agreed that they still had enough leisure time, however they also agreed in various degrees that they thought they should spend more time on school. None of the participants was unsatisfied with their grades: two were neutral and one was completely satisfied. Lastly, they all agreed that they were easily distracted during schoolwork.

The second questionnaire tried to see if the goal was met. The participants indicated that they had the feeling that they did not have enough leisure time, however they all noted here that the testweek had begun two days after the first meeting and had ended on the day of the second meeting. Therefore, they felt that they could not judge this very well. They also said that they felt that they would have more time in normal school weeks. On average, the participants did neither agree nor disagree to the statement that they thought they should spend more time on school. The pupils agreed (N=1) or completely agreed (N=2) with the statement that the pupils were able to study more efficiently during the last week. Also, they all completely agreed that they felt this course will help them to develop their learning method better. Lastly, the all completely agreed that they would recommend this course to others.

Apart from the questionnaires, I also did an oral evaluation of the course. During this oral evaluation, the pupils indicated that they really had liked the Pomodore Technique, which they had all tried. Two of the pupils had tried to make a list. They indicated that they had liked it however they felt that prioritizing using the Eisenhower Method was a lot of work and they noticed that they did not stick with it. Therefore, they wanted to use something else. During the conversation, they already started listing things they could try instead. Therefore, I could simply tell them that they should try it. One participant used the Timeboxing method. She indicated that she had been extra motivated to work hard and not get distracted because of the time limit. However, she also indicated that it had been hard to estimate the times and therefore it she had to adjust her planning quite often. She did like the Timeboxing method however and wanted to keep using it but instead of planning the whole week ahead, she wanted to try to make a planning each day.

Both the questionnaires and the oral evaluation indicated that the pupils felt that they had been able to study more efficiently after the course and that they were really enthusiastic to try new things and develop their own learning method. They also indicated that they thought that the course had been useful. Of course, a limitation here is that the participants were likely to answer more positive because they had met me and I was also the one who would see or hear their answers. However, I still consider this goal as met.

# ADVICE

I only have two advices for the pupils. The first one is to keep using the things they have learned during this course about developing your own learning method. They can keep trying different techniques to figure out if they can improve their learning method even more. It would be great to keep developing even if they believe that they have already completely figured it out.

The other advice would be to optimize the process of developing by monitoring. Monitoring your effectiveness by for example using the phone app Toggl makes you more aware and makes it easier to figure out what still needs improvement. Therefore, I would encourage the pupils to try monitoring their behaviour. I did not include this advice in the course itself because I believed that it would make the course too much work for the pupils, however I did give them this advice at the end of the last session.

## LEARNING EXPERIENCE

"*Helping is a general human process that applies to parents, friends, teachers and managers, not just to consultants or therapists whose central role is to help*."
((Schein 1990) page 1)

Once I had sorted out what I wanted to do for this change intervention, I was really eager to start and to help the pupils who were very similar to who I once was. Also, this was my first chance to share something I am really passionate about but most people are not really interested in: how can you be more productive and more efficient? However, as I soon after the start of the project learned: nothing goes according to plan. During the intervention, it was harder than expected to get enough participants in the course and in the end I had to settle for half of the number I was aiming for, namely five. Also, actually giving the course was hard. We had to reset the date three times. I experienced this as something very frustrating and demotivating: I was eager to help the pupils but I was really limited. But as I learned once during my regular studies, Bsc Health Sciences: "*Science is falling down, crying out and continuing.*"(Meijerink 2018). And in the end, I had to settle for a less than ideal date for the session: just half a week before the beginning of the testweek and with only three participants.

Something I would do differently is the planning of the intervention. I was already in the fourth week of the module when I finally asked help to find a topic and therefore, I had started the intervention late. I think it would have been nice to start earlier, maybe I should have given myself a week to choose a topic. If I had started earlier, it would have been easier to actually do the course the way I would have wanted to. This comes all down to one thing I did not: I did not admit that I needed help in finding something I wanted to change. This brings me to the first big thing that I have learned during this project, namely to admit to myself that I need help and to ask for that help. The big impact it had on my project that I did not ask help sooner made me realise that if I want to accomplish things, I cannot do it alone and I have to ask for help. I put this immediately in practice when I struggled finding the right change approach. In search of the right change approach, I read a lot of literature on change approaches and I became overwhelmed. It was at this moment that I decided not to wait but ask immediately for Desiree's feedback and help, which really helped me to continue. Therefore the first lesson is that I should admit more often and sooner that I need help and then ask for help.

Another thing I have finally learned and acknowledged is the importance of triggers. Before I kind of thought it was stupid to explicitly think about what kind of triggers you need. I did not think that triggers were not important but I just never gave it much thought whenever I wanted to build a new habit. However gaining more insight in FBM and the importance of triggers made me realize that I should start thinking more explicitly about which triggers I want to use next time I want to build a habit. Something that was really helpful here is that FBM made sense to me and I found the theory quite logical.

Something that I would keep is using two change approaches which are a bit overlapping but which mostly complement each other. I think, the two change approaches I chose, FBM and Schein's model of transformative change fit really well together. Schein's model provided me with the overall picture of change and FBM gave me the practical perspective on what is needed to actually change the behaviour.

### TYPE OF CHANGE LEADER

Looking at the approaches I chose and the way I set up the course, I think I am a very personal change leader: I highly value having a connection with the people are undergoing the change. I also really tried to engage the pupils in the change instead of imposing the change on them. This is also in line with my Insights Discovery profile, which mentioned that I usually use the roll of Inspirer.

My Insights Discovery profile showed that I tend to use the yellow colour, which means I value engagement of people and I can be enthusiastic and persuasive. Something that also was mentioned in my Insights Discovery profile was that I provide inspiration and lead by personal example. I think this reflects what I did in my change approach: I tried to connect with the students by talking to them and sharing my personal relation with developing a learning method. At the same time, the subject of developing your own learning method is something that I am really interested in and which I am very enthusiastic about. I think that being enthusiastic and passionate about something really helps to motivate people to change and as my Insights Discovery profile mentioned, one of my key strengths is "infectious enthusiasm".

This was confirmed by the feedback I got from the participants. I had asked all the participants to write down the things they had liked about the course and the things that could be improved. The things everyone wrote down was that they had liked the personal attention everyone received and that I incorporated my own experience in the course, which made them feel like I was one of them instead of someone high above them telling them what to do. The other thing that they all wrote down was that I made them really enthusiastic and motivated to try everything and develop themselves.

## COACHING EXPERIENCE

My coaching process, with coach Karin Lammers, was very similar to the process that I wanted the pupils to go through. And I could therefore draw some inspiration from the coaching sessions for my own change intervention, for example the preference for using triggers and scanning for solution. However, my coach was not there for me to discuss the content of the project but she was there for my personal development. So, what did I develop during my coaching period?

The first thing I learned was that nobody is ever done improving or developing themselves. And I certainly am not. After doing an 'ontgroening' and the decentral selection for Medicine at the same time, and managing to get in Medicine with a really good ranking, I kind of felt invincible. And I lost my desire to improve myself. So, when I met my coach I did not really know what I was doing there. However, during the conversation, I gradually realized that there was something I wanted to change.

The thing I wanted to change was to differences in the amount of pressure I felt between weeks. So, we discussed what we would do about it. First, we came up with planning two tasks for each day which I absolutely should do that day and apart from the day-planning I made a weekly list of things to do. It did not work, because I ended up doing only the necessary and skipping everything on the weekly list. After evaluation of the week, we changed the approach a bit. On the weekly list there would only be small tasks that did not require a lot of thinking, for example, cleaning my bed sheets. And I would plan a few moments each week to do the things on my weekly list. Also, we decided that the spread the pressure more across weeks, it would be a good idea to add some 'me-time' each week: just block some time in my calendar dedicated to just doing something I liked without obligations. First, I thought this was a bit stupid but trying it made me realise how much I liked it. Now, I dedicate one evening half way the week to just relax and do something I want to do at that moment.

It can be so easy to let all the obligations coming from study, work, friends, family, partners take over your calendar to the point where your calendar does not feel like your calendar anymore. And I realized that that does not necessarily have to be a problem if it happens once in a while, but I let my life be dictated by others. By just being more aware of planning my own calendar, I felt more in control. I learned to sometimes say "no" to people wanting me to do something. Saying "no" can be really hard for me, which was confirmed by my Insights Discovery profile, but making appointments with myself ("Wednesday from 20:00 to 22:00 I will not plan anything else.") made it easier to say "no" and not feel guilty about it.

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# APPENDIX A: QUESTIONNAIRES

There will be two questionnaires: one before the first meeting (questionnaire 1) and one after the second meeting (questionnaire 2). The first questionnaire was intended to reflect how the pupils feel about their learning method, the amount of leisure time they have and if they were satisfied with the amount of time they spent on school and their grades. The second questionnaire was intended to reflect their perception of their increase or decrease in efficiency and whether they liked the course.

Below, the questionnaires are presented in the original language, namely Dutch. Below each question the motivation to ask that certain question is given in blue.

## QUESTIONNAIRE 1

| | |
|---|---|
| Deelnemersnummer: | __________ |
| Leeftijd: | _______jaar |
| Geslacht: | man / vrouw / anders |
| Klas: | HAVO 4 / VWO4 / VWO 5 |
| School: | ______________________________________________________ |

Hoeveel tijd denk je dat je gemiddeld besteed aan school, naast schooluren?

With this question, I wanted to get a general idea how much the pupils already spent on school. This was also to see if they generally needed to spend more time on school instead of only learning more efficiently. Or, the complete opposite, if they spend much too time on school to an amount that is no longer healthy.

Geef aan hoeverre je het eens bent met de volgende stellingen:

1. *"Ik heb het gevoel dat ik voldoende vrije tijd heb"*
    - Helemaal eens
    - Eens
    - Niet mee eens/ niet mee oneens
    - Oneens
    - Helemaal oneens

One of the promises of this course was that the pupils would get more leisure time by learning more efficiently. With this question, I wanted to measure whether the pupils actually felt the need to have more time and if that promise was relevant.

2. *"Ik zou meer tijd moeten steken in school"*
    - Helemaal eens
    - Eens
    - Niet mee eens/ niet mee oneens
    - Oneens
    - Helemaal oneens

Since the course is voluntary, I assumed that the pupils have some need to change the way they learn. With this question, I wanted to figure out if they have this need because they believe they do not spend enough time on school.

3. *"Ik ben tevreden met mijn huidige cijfers"*

- Helemaal eens
- Eens
- Niet mee eens/ niet mee oneens
- Oneens
- Helemaal oneens

With this question, I wanted to know whether the pupils felt the need to change, and hence to participate in the course, because they were not satisfied with their grades.

4. *"Als ik met school bezig ben, word ik snel afgeleid"*
    - Helemaal eens
    - Eens
    - Niet mee eens/ niet mee oneens
    - Oneens
    - Helemaal oneens

As is described in the introduction, the current technological environment can be distracting and cause media multitasking. Media multitasking (Wallis 2010), and multitasking in general, can decrease the pupils' cognitive ability and therefore making it harder for the pupils to focus on the task at hand (George and Odgers 2015). Therefore, this question was added to the questionnaire to see if the pupils experience that they get easily distracted.

## QUESTIONNAIRE 2

| | |
|---|---|
| Deelnemersnummer: | __________ |
| Leeftijd: | _______jaar |
| Geslacht: | man / vrouw / anders |
| Klas: | HAVO 4 / VWO4 / VWO 5 |
| School: | ______________________________________________________________________ |

Geef aan hoeverre je het eens bent met de volgende stellingen:

1. *"Ik heb het gevoel dat ik meer vrije tijd heb"*
    a. Helemaal eens
    b. Eens
    c. Niet mee eens/ niet mee oneens
    d. Oneens
    e. Helemaal oneens

One of the promises of this course was that the pupils would get more leisure time by learning more efficiently. With this question, I wanted to measure whether this promise was achieved.

2. *"Ik zou meer tijd moeten steken in school"*
    a. Helemaal eens
    b. Eens
    c. Niet mee eens/ niet mee oneens
    d. Oneens
    e. Helemaal oneens

Another promise of the course was that the pupils would get better grades without spending more time on school. Therefore, the pupils might no longer have the need to spend more time on school. This question was intended to measure if this was achieved.

3. *"Afgelopen week was ik minder afgeleid wanneer ik met school bezig was."*
    a. Helemaal eens

b. Eens
c. Niet mee eens/ niet mee oneens
d. Oneens
e. Helemaal oneens

By being more focused on the task at hand, the pupils can learn more efficiently. Therefore this question was intended to see if they were less easily distracted.

4. "*Ik heb het gevoel dat ik afgelopen week efficiënter heb kunnen studeren*."
   a. Helemaal eens
   b. Eens
   c. Niet mee eens/ niet mee oneens
   d. Oneens
   e. Helemaal oneens

The subjective project goal was "*The pupils participating in the course, have the feeling that they study more effectively and efficiently.*" This question is intended to measure this goal.

5. "*Ik heb het gevoel dat ik na deze cursus mijn leerstijl beter kan ontwikkelen.*"
   a. Helemaal eens
   b. Eens
   c. Niet mee eens/ niet mee oneens
   d. Oneens
   e. Helemaal oneens

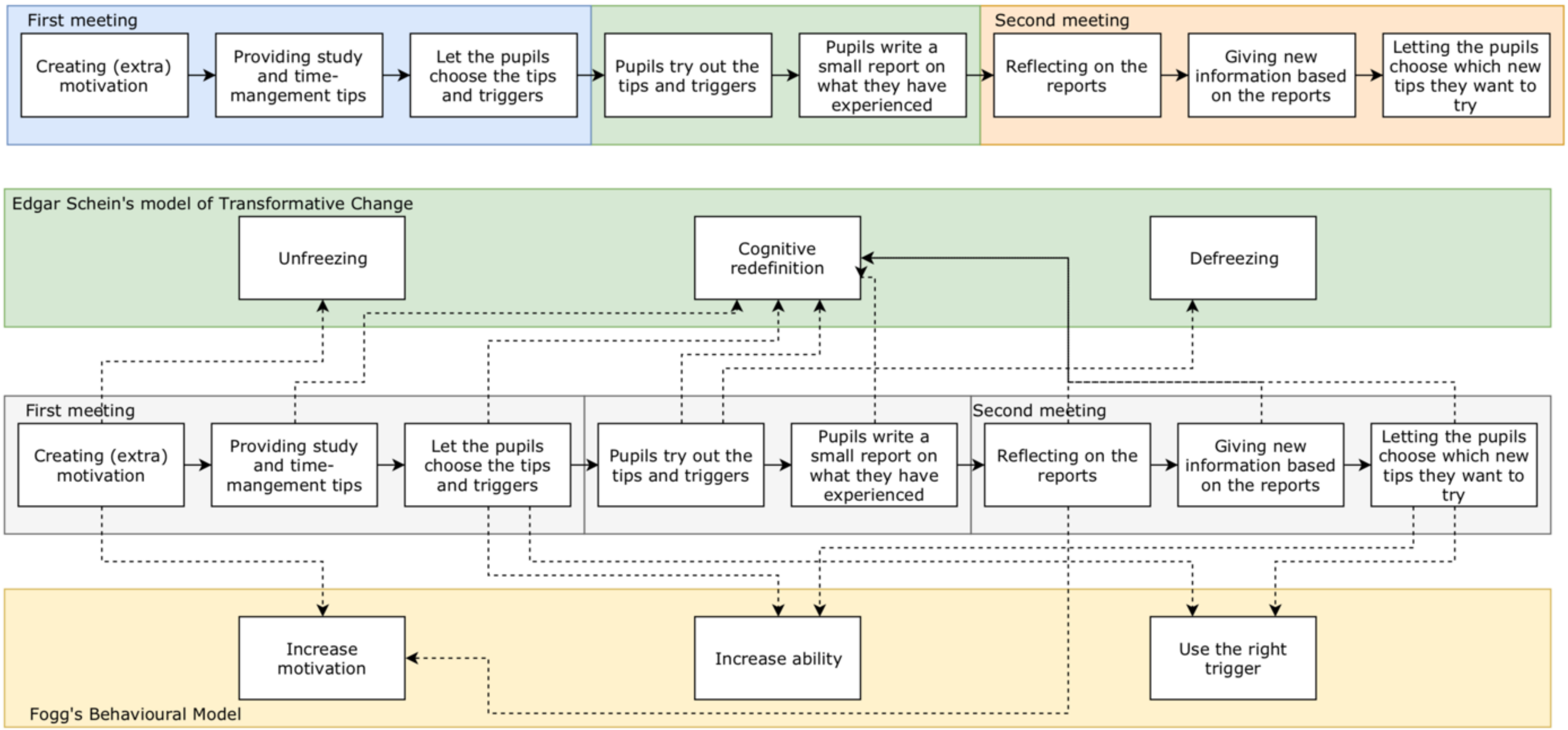
As was explained in 'Change goals', the pupils can improve their school results by developing their own learning method and learning more effectively. However, developing your own learning method takes time and is a process of trial-and-error. This course was intended to give the pupils the means to develop their own learning method after the course has ended. This question was intended to measure whether the pupils felt that this aim had been achieved.

6. "*Ik zou deze cursus aanraden aan anderen*."
   a. Helemaal eens
   b. Eens
   c. Niet mee eens/ niet mee oneens
   d. Oneens
   e. Helemaal oneens

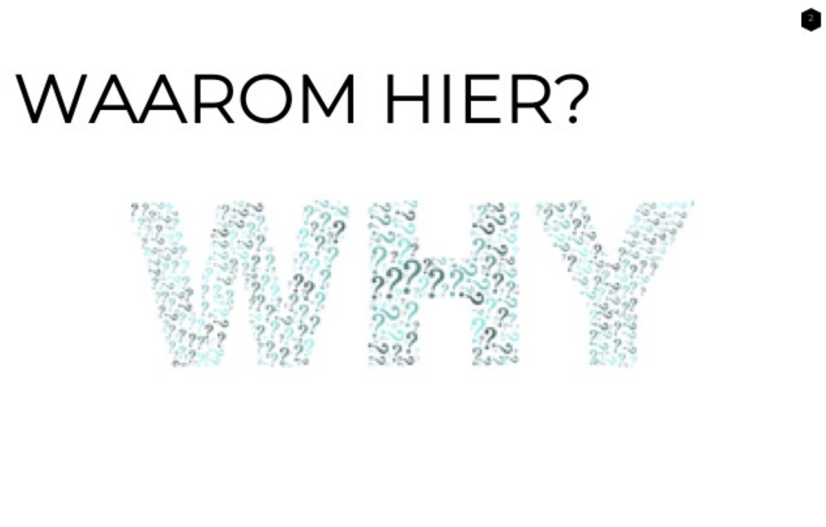
Lastly, I wanted to know whether they generally thought the course was nice and useful. Therefore, I asked this question.

Heel erg bedankt voor het meedoen aan deze cursus!

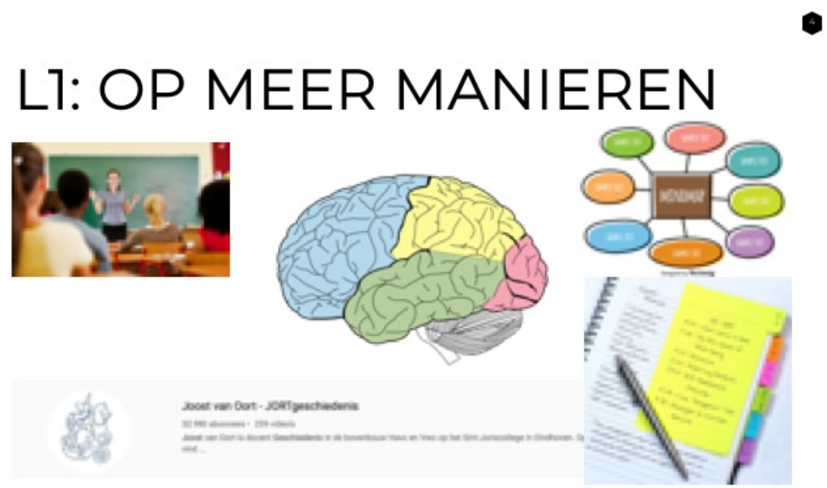
# APPENDIX B: SCHEMATIC OVERVIEW OF THE INTERVENTION




HOE LEER JIJ?
Meeting 1 - Kyrah Goeree


WAAROM HIER?
WHY


HOE LEER JE NU?
GOOD GRADES
CHOOSE TWO
SOCIAL LIFE
ENOUGH SLEEP


L1: OP MEER MANIEREN
Joost van Dort - JORTgeschiedenis

# L2: HERHALING

Ebbinghaus:
- In 1 dag leren: 75 herhalingen
- In 3 dagen leren: 38 herhalingen

| *Time to test* | *First study interval* |
|---|---|
| 1 Week | 1-2 Days |
| 1 Month | 1 Week |
| 3 Months | 2 Weeks |
| 6 Months | 3 Weeks |
| 1 Year | 1 Month |

# T 1:LIJSTJES

OPDELEN!


# T2: TIME-BOXING

Wet van Parkinson:
”Werk breidt zich uit om de tijd tot voltooiing te vullen”

# T3: POMODORO

9

# OVERZICHT

Leertips:
- Op verschillende manieren leren
- Herhaling

Time-management tips:
- Lijstjes maken
- Time-boxing
- Pomodoro

# Hoe gaan we verder?

# Wat ga ik aankomende week doen?

## Leertips

### L1: Op verschillende manieren leren.

| *Welke manieren:* | *Triggers:* |
|---|---|
| | |
| | |
| | |
| | |
| | |

### L2: Herhaling

1. Maak een overzicht van hoeveel tijd je nog hebt voor elk vak tot je het proefwerk hebt.
2. Bepaal van elk vak op welke dagen je de stof gaat leren.

Triggers:

## Time-management tips

### T1: Lijstjes

Hoe ga ik lijstjes maken:

Triggers:

### T2: Time-Boxing

Wat ga ik doen:

Triggers:

### T3: Pomodoro

Wat ga ik doen:

Triggers:

# A CASE FOR MORE PERSONAL COACHING OF EMOTIONAL INTELLIGENCE

18 JULI 2018

HONOURS POC, DESIRÉE VAN DUN, KARIN LAMMERS & CELESTE WILDEROM

Module 6

## Introduction

The past decennia a lot of studies have proven the importance of using, perceiving, understanding and managing emotions, such that stress is reduced, positive and productive emotions are enhanced and negative unpleasant and destructive emotions are moderated (e.g., Liu, Peng and Wong, 2014). Also, in the professional sphere emotional competencies and abilities are being developed among employees to increase job performance and consequently the performance of the firm. However, most emotions and related behavior is taught easiest to younger children. Therefore, elementary schools are increasingly embracing learning aspects of emotional intelligence such as; empathy or anger management. According to Marc Brackett in 2013 over 8000 schools in America are using the RULER system to teach emotional intelligence in elementary school (Retrieved from; https://www.youtube.com/watch?v=e8JMWtwdLQ4 5-7-2018). On the other hand, if firms or schools do not offer such courses, the importance of developing the skill is not less important for personal success and health. This makes that adults are also targeted with popular books of Daniel Goleman (1995, 1998), for example. Interpersonal abilities become increasingly important to gain success as an adult.

According to the world health organization there are some shocking numbers on the amount of depression, sick leave and costs to the society. (Retrieved from: http://www.euro.who.int/en/health-topics/noncommunicable-diseases/mental-health/news/news/2012/10/depression-in-europe/depression-in-europe-facts-and-figures 20-06-2018)

1. Each year, 25% of the population suffer from depression or anxiety.
2. Neuropsychiatric disorders account for 19.5% of the burden of disease in the European Region, and 26% in European Union (EU) countries.
3. These disorders account for up to 40% of years lived with disability, with depression as the main cause.
4. Up to 50% of chronic sick leaves are due to depression/anxiety.
5. About 50% of major depressions are untreated.
6. The cost of mood disorders and anxiety in the EU is about €170 billion per year.

These numbers give two major reasons for my individual change project. The first is the need for individuals to use emotions and come in touch with them again and developing all other useful domains of emotional intelligence, to increase personal success and decrease mental breakdowns of any kind. Second, also in business spheres should be offered tools to develop their emotional intelligent abilities to make them more resilient and increase job performance. Besides, professionals are also increasingly judged not just on their competencies, personality or intellect, but also on their emotional and social intelligence. This means that an appropriate support system for the development of EI is only reasonable. All the more because there are many researches providing evidence that top leaders, sales force and other professionals excel in their job and earn millions more money than professionals who are scoring lower in EQ (e.g. Spencer and Spencer, 1993; Spencer, McClelland and Kelner, 1997; Boyatzis, 1999).

## Change goals

Now that there is some strong empirical evidence for teaching and developing emotional intelligence, a specific target group and change goal should be formed to execute the change project. First let me make a distinction between five types of individuals regarding emotional intelligence. No matter what target group will be chosen, these distinction should be understood and applied for more personal coaching of EI. They will help understand exactly what needs exist and how they can be targeted as a change goal as further elaborated on in the table below.

There are five types regarding emotional intelligence which were developed by Tatton (as cited by Palmer, Harmer and Gignac, 2009):

“1. The Emotionally Intelligent, individuals with high levels of emotional knowledge and who demonstrated effective use of that knowledge in the role play.

2. The Emotionally Intuitive, individuals with low levels of emotional knowledge yet applied that knowledge effectively in the role play (e.g., demonstrated sensitivity to interpersonal cues and positive interpersonal behaviours).

3. The Emotionally Negligent, individuals with high levels of emotional knowledge yet could not apply that knowledge effectively in the role play (e.g., missed others’ emotional cues). Interestingly, Tatton reported that upon reviewing their performance the ‘‘emotionally negligent’’ individual was able to discuss what he or she should have done or what would have been a better approach in the role play.

4. The Emotionally Manipulative, individuals with high levels of emotional knowledge who chose to use this knowledge in a more nefarious intent during the role play (e.g., lowering others’ self-esteem to enhance their own position or dismissing others’ feelings so as not to validate them).

5. The Emotionally Unintelligent, individuals with low levels of emotional knowledge and who failed to demonstrate effective use of that knowledge in the role play (e.g., missed others’ emotional cues, etc).”

By means of an intervention workshop, the ***goal is to inspire and bring awareness on the positive effects of emotional intelligence and provide knowledge on how to develop the ability***. This can be measured by asking participants whether by the end of the workshop they feel inspired or well informed on the topic. Below is a table displaying exactly the target group of persons within the students and the action I will take within the workshop and what the effect should be to reach the goal.

| Type | Action | Purpose |
|---|---|---|
| **Emotional intelligent** | Give scientific background of Emotional Intelligence.<br><br>Give a clear profile of an emotional intelligent person stressing the need of empathy to prevent becoming emotionally manipulative and install empathic and ethical boundaries to regulating of emotions in others. | The scientific background should enable the emotional intelligent person to learn even more about the topic and be aware that it is scientifically studied.<br><br>The clear profile should help make the emotional intelligent person identify where he or she stand in the spectrum of emotional intelligence.<br><br>After the development of self-awareness for the emotional intelligent, the awareness on the importance focusing on cherishing the empathy aspects of emotional intelligence will hopefully inspire the person to responsibly develop all the areas of emotional intelligence without missing important aspects. |
| **Emotional intuitive** | Give scientific background of Emotional Intelligence and elaborate deeply into the four domains of emotional intelligence.<br><br>Within every domain of emotional intelligence tools will be given and discussed with personal examples from the participants. | The knowledge given on emotional intelligence will ensure the emotional intuitive to become more knowledgeable and make an inspiring start on learning about this complex area of self-development.<br><br>The tools for self-development and the personal examples will give in-depth knowledge about personally challenging lack of emotional intelligent knowledge, to make participant feel the value of knowing what emotional intelligent behaviors are and what they specifically could do to their lives. |
| **Emotional negligent** | Reduce the emphasis on scientific information and emotional knowledge. Plus, increase the in-depth personal cases per emotional intelligence knowledge domain. | The emphasis on the personal value to be gained from emotional intelligent behavior should inspire the person to once again find intrinsic motivation to develop and apply their emotional intelligent knowledge further to their and others' advantages. |
| **Emotional manipulative** | Reduce the emphasis on scientific importance and emotional knowledge and increase the awareness on the importance of empathy.<br><br>Personal examples, dilemma's or challenging situations may come up, likely to display the lack or empathy used by the emotional intelligent person. The delicate and thorough discussion of such as case, could run the person through a hypothetical situation that would show the positive impact empathy could have had in solving the problems that arose. | The importance of empathic behaviors as a guideline for applying the other domains of emotional intelligence, should inspire the emotionally manipulative person to see the long term, sustainable and responsible advantages for all parties involved.<br><br>The personal examples should make the emotional intelligent more vulnerable, but while delicate discussion also it should make the person intrinsically motivated to see the value of feeling out-of-control and empathic. The what goes around comes around, ought to become clear by being in control through putting other people in control in an empathic manner. |
| **Emotional unintelligent** | Give scientific background of Emotional Intelligence and give as much emotional intelligence knowledge as comprehendible by the emotionally unintelligent. | The goal for this type is not to convince or inspire the unintelligent to become something they are not. However, to inform them on the existence of emotional intelligence as an ability and that with life-long practice one could hope to master this skill. |

The workshop will target students. There will first be a practice run with honors students. They are familiar with the demands and conditions of an effective change process, and will be critical towards the content of the workshop and its persuasive effects. There are two main reasons for targeting students. Firstly, as I am a student it is easier for me to place myself in their shoes and assess more intuitively what type of person they are and adjust my behavior during the workshop accordingly. Secondly, the current tools that exist for the development of children are very basic in nature, therefore the younger my participants the more effective the tools can be taught and add long term effect. Thirdly, the more 'unofficial' reason, the participation of students was the most realistic execution of my project, because of the time-frames given for finishing the individual project.

As stated I believe targeting students will provide most value. Students are in a very dynamic phase of their lives, almost completely focused on self-development in both personal and academic areas. Teaching emotional intelligence will improve both students' academic performance and as mentioned before also their professional performance later in life (Libbrecht, Lievens, Carette and Cote, 2014).

The workshop will use the ability-based model of Salovey and Mayer (1990; 1997). The reason why this is the main model used is in twofold. Firstly, "Mayer and Salovey's model reflects behaviour in the real world, it is purposive and directed toward goals, and it involves the automation of high-level processes (crystallized intelligence)." (Jordan & Troth, 2004, p.197). Secondly, the ability-based model has been developed at Yale, where tools aimed at young people have been developed as well. These tools will be discussed more elaborately later.

The mixed-model of Daniel Goleman (1998), has a special focus on empathy as a part of emotional intelligence, which does make it a suitable theory to mention to certain types in case the ability-based model is not thorough enough. However, the mixed model is too broad and will not provide as much in depth insights as the ability based model can for all five types of persons.

The definition that was also offered during the workshop was: "Emotional intelligence is the ability to monitor one's own and others' feelings, to discriminate among them and to use this information to guide one's thinking and action." (Mayer & Salovey 1990; Mayer & Salovey, 1997). The ability-based model of Emotional Intelligence has four branches (Mayer, Salovey and Caruso, 2008). Emotional intelligence is seen as the joining of the four branches of abilities;

1. Use emotions (to facilitate thought)
2. Perceive emotions (in self and others)
3. Understand emotions (emotional language and signals)
4. Manage emotions (in self and others to attain specific goals)

## Change approach

*General change strategies*

A workshop will provide both information and exercises to learn about and experience emotional intelligence. The sample workshop made use of slides and a booklet. The official workshop had improved slides and made us of only print-outs to focus more on collective personal development and less on immediate individual self-development of the emotional intelligence abilities. In general the workshop will make use of Heart-Head-Hand method to be engaging and persuade people. However, I will start with a head, than a hand and when needed a heart to discuss any individual heart felt problems, that I might be able to help with from an emotional intelligent perspective.

During the whole workshop I will use positive language and try and encourage a non-judging atmosphere. I sometimes give personal examples that show sensitivity and trust. This is mostly given back or at least increases the chance participants share it among each other. Likability by means of jokes and vulnerability might increase the chance of participants actively listening and willing to learn (Cialdini, 2007). Also I end with once again the four domains of emotional intelligence. This is because repetition and consistency is a great way for participants to remember important information and slowly build up the more and more complex dimensions of emotional intelligence. Also it might help see if all put together after some perhaps intense insights it leaves them with questions or needs that I can still help with to truly inspire or bring awareness also perhaps about hands-on necessary future steps to better self-development in emotional intelligence. To evoke these problems I will use the technique 'target chuting' from Cialdini (2007). Asking if participants have any issues, they are more likely to come up with possible issues they have in one of the domains of emotional intelligence. Also the principal of scarcity and authority will evoke interest of participants. As emotional intelligence could lead to making more money and higher top functions, which are both scarce.

*Content of the workshop:*

Slides one to four are giving some of the statistics that prove the benefits of developing the abilities of emotional intelligence. They are mostly aimed at the types of persons who are convinced more easily with numbers and rational argumentation. The slide after that are aimed to convince more of the emotional intuitive or intelligent people of the value of emotional intelligence as I explain with these slides and verbally that memories are very emotionally laden. This means for a lot of people that in retrospect we think of how our lives were by giving emotions to them. Besides picturing how a future could be is also an effective persuading technique according to Duarte
(retrieved from; https://www.ted.com/talks/nancy_duarte_the_secret_structure_of_great_talks).

In slide 5 I give a short introduction about the three different theories on Emotional Intelligence in scientific literature. The ability, the trait and the mixed model of emotional intelligence (Joseph, Jin, Newman, & O'Boyle, 2014). Based on the short introduction, I elaborate on the ability based model for already mentioned reasons. Slide 6,7 and 8, are providing a definition and a further explanation of EI with help of the RULER method and the four domains of EI.

The next slides are one by one taking all the participants through all the four domains of emotional intelligence and offering three of the four tools within the RULER system. **Perceiving, understanding, using** and **managing** emotions.

The first is Perceiving, which starts with slide 9. It continues with slide 10 showing a Mood Meter, which is one of the four tools of the RULER system. I will explain that the mood meter can be used to constantly check in with yourself. This means rating how you feel. Later on in the presentation in the domain regulating, I will show that it non-judgmental openness while checking in is important to make effective use of the perceived emotions. Slide 11 and 12 are to create awareness on how emotions are expressed and thus how one can perceive them. Also the question is part of a 'heart' technique to make the participants feel more connected to why emotions may be important in their lives. This importance should help get participants more excited to learn about how they are perceived and expressed. Slide 13 is left intentionally blank for questions or discussions. Slide 14 is a video, the video is from the movie inside out. This fragment will perfectly visualize how emotions are expressed, and also used and understood through their situational evolving. This video is therefore a good bridge to the next domain Understanding. However, also the video about empathy was put in to create an even more stronger sense of what understanding of emotions can do in relationships between people.

Secondly, understanding emotions is related to perceiving emotions, but in that after perceiving one has to understand emotions by labelling situations or common simultaneous emotions, for example. It is really about understanding and creating a more in depth view of what emotions are and how they relate. The mood meter tool, with some examples of possible emotions, showed the variety of possibilities. The part should evoke discussion that can then be steered with the mood meter, so it would not take too long.

Thirdly, using emotions is the most abstract term to explain, therefore it came later. This is because it is using emotions to facilitate thinking which is a very internal process and cognitive in essence. I will give the example of the marshmallow test. Where children were tested on their ability to put off immediate satisfaction for longer term more satisfaction. The example of finishing homework so that the joy of watching tv will not be ruined by stress was also one that is handy as everyone has been a student that dealt with procrastination. After the explanation of using emotions to facilitate thinking, slide 23 and 24 are providing the participants with the chance to experience personally how using emotions feels. Slide 26 with the tool Blueprint also from the RULER, helps reflect and determine how to more effectively make use of emotions.

Fourthly, managing emotions is best experienced instead of explained, because of the complexity it may have in real life situations. On the other hand, showing the influence of emotions in a conversation will also leave very intriguing insights of the power of emotional intelligence and might stimulate participants to be more conscious about real life experiences of regulation. Therefore, the third RULER tool the 'Meta-Moment' is introduced. The tool helps participants to become more aware of the first step of regulating. The internal process of taking a moment to realize steps 1 to 5. Step 6 is more external when the strategy is applied. Of course complexity comes in when during the step six other steps interfere or when the whole process needs to be repeated, because of unexpected events. Step two of the meta moments is related to the mood meter. That is why the mood meter was once again discussed in slide 29. After the whole workshop the mood meter should become easier to put to use and use in combination or as a basis for all the other tools. It is also a bridge to be able to show the mood meter related strategies to the four colors and emotions that are identified in slide 30. Per colour Red, Blue, Yellow or Green the person can identify if the emotion can be put to use or should be moderated. Once the participant develops the skills within all four domains as shown in slide 32, it can also try and regulate other people's emotions if necessary.

## Results of (changing components of) workshop

The test version I did had two participants. This made it an intense and very personal session. Beforehand and afterwards I asked the participants to share with me expectations and how they were met and if they were inspired and felt they learned what emotional intelligence is. Both participant gave a positive response and said they felt it was a shame they could not learn more about it with me. They were inspired and had that because they knew better what emotional intelligence was they wanted more in depth personal sessions to increase knowledge and abilities. This gave me the idea for the intervention to stay small in size and become more like a coaching intervention with more options to personalize the intervention.

Specifically there was a drawing exercise that should have helped think about how participants perceive emotions and how they look. This will increase awareness about how to improve watching emotions and how to recognize them better. However, the exercise was very difficult and took a lot of time, so I chose to leave it out during the second try. Instead the exercise to identify life in six emotions and visualization of how faces express emotions was put in the part of perceiving as a quick, but effective manner to create this awareness about how emotions look.

In the second part the reflecting questions should help trigger debate, but this part of the workshop is where individual input and discussion was wanted. I did this by asking them to ask me questions about the topic and to give personal examples of how they are or are not struggling with understanding emotions. This helps me guess what type they are most likely and to then accordingly in a more provocative coaching style ask questions to help them gain specific and personal awareness on where they stand and how to best continue for self-development. This worked great! However, for the second workshop it was left out and done in the complete end. This is because this way I had more time to explain further the mood meter instrument and go in depth about understanding the differences between emotions. I noticed participants were very willing to go more into the coaching session towards the end and do it in their own time, then to get more informative slides towards the end. So this was not better time management, but it did ensure more information would be given and more coaching happened in the second workshops, which I received a positive reaction to.

In the third part the RULER tool ‘Blueprint’ was added to provide more help with reflecting questions and how to further self-develop a better usage of emotions. The tool was perceived as very basic, but in combination with the example of the electric kettle participants notice the power of simple reflecting questions could have.

In the fourth part it was first expected that the participants will play a role so that they have lesser social barriers such as shyness or shame for personal topics to deal with. Besides, trying to perceive and use emotions and also understand them such that with this intelligence the actor could regulate other emotions is very useful for gaining in depth insights for personal development. For example, a participant could learn how to not only show empathy, but also cheer someone up with the use of positive wording or by asking questions that provoke pleasant emotions in the other participant. However, for the second workshop time constraints made this part too elaborate and was replaced with more basic information on the tools of the RULER and how to integrate everything together to regulate more effectively. The role play was skipped, but I still noticed that after the second workshop, participants were enthusiastic and offered personal circumstances very openly to discuss them with an EI perspective.

The second workshop was exactly the same length as the first workshop, one hour. However, because of better more concise information and persuasion techniques more time was left to discuss the tools of the RULER. This offered more practical value for participants. This was rewarded with an extra half an hour discussion after the second workshop where participants wanted to analyze personal circumstances. This led me to use more of my coaching style instead of an informative style of teaching.

## Reflection on process

From my coaching sessions I learned three things: I like to coach and be coached more than I expected to. When necessary I need to ask help of others to rationally think through an emotional problem with me. And lastly, that I want to use my own emotional intelligence to develop it more in myself and in others through platforms such as the art of hosting or workshops such as the one I developed here. As I mentioned a little before, I would however personalize workshops more and use more coaching techniques to really in depth bring awareness and inspire people to increase their emotional intelligence.

The first lesson I realized when I did the first workshop. I noticed two very technical students to have a great interest in personal coaching, which gave me confidence and motivation to help them and more people. Not only did I just want to help them, but I was reassured that emotional intelligence development through coaching could really provide great personal value. My first lesson was especially a lesson in being more appreciative of the knowledge I gained through my thesis and my individual project. Once I became more appreciative I was also more confident in myself and my ability to help people with adopting and learning more about a coaching style.

The second lesson is more related to my thesis when I learned it, but eventually reflected in my honors project. My thesis or actually my study planning had some personal difficulties, which appeared to be very hard to resolve with my environment. This led me to feel very bad, which ironically I could not regulate myself out of anymore, to the point where they became destructive. My coach helped me visualize every single responsibility I had at that time, how much energy they costed and how much I valued them. Together we came to the conclusion that certain responsibilities were costing immense energy, because of my personal difficulties in the situation or because of the persons involved. I was able to let loose of those responsibilities and not give unnecessary energy to them if I did not value them. This gave back a lot of energy, but mostly taught me to seek for help emotionally or rationally in times of feeling really helpless and out of control of myself and my environment. Within my individual project, I was a lot less afraid to accept help and kick-start my project simultaneously with all the other responsibilities I was handling. I am very happy I learned this lesson and again if gave me a sense of confidence and self-worth a bit. I really do appreciate this lesson the most out of all the things I learned this module as it had a deep personal meaning and at the same time helped me achieve my goals.

The third lesson is more future oriented. I learned my interest in learning about and developing emotional intelligence grew stronger. I learned that learning about it and learning others about EI, helped me grasp the construct even more and what it can do for my personal life and those of others. The complexity of the construct from both a scientific and practical point of view is to say at least intriguing. These three lessons make me very curious about how this individual project will reflect in all my future projects.

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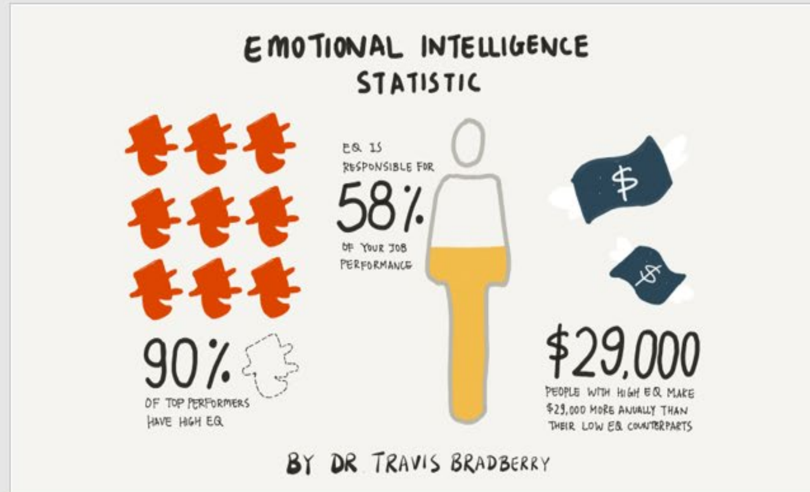
## Appendix


eager
OVERWHELMED
ANXIOUS APATHETIC WORRIED
LIBERATED
excited FEAR Remoresful aggressive lonley
embarrassed hopeful irritated disappointed perplexed
EMPTY provoked AWE JOYFUL rejected
LOVING suspicious nervous amused hesitant MAD IGNORED
COURAGEOUS confident
GUILTY HURT Proud insignificant Violated SAD
confused
peaceful threatened
accepted INDIFFERENT
estatic jealous amazed
INFERIOR bored
disrespected
Emotional Intelligence

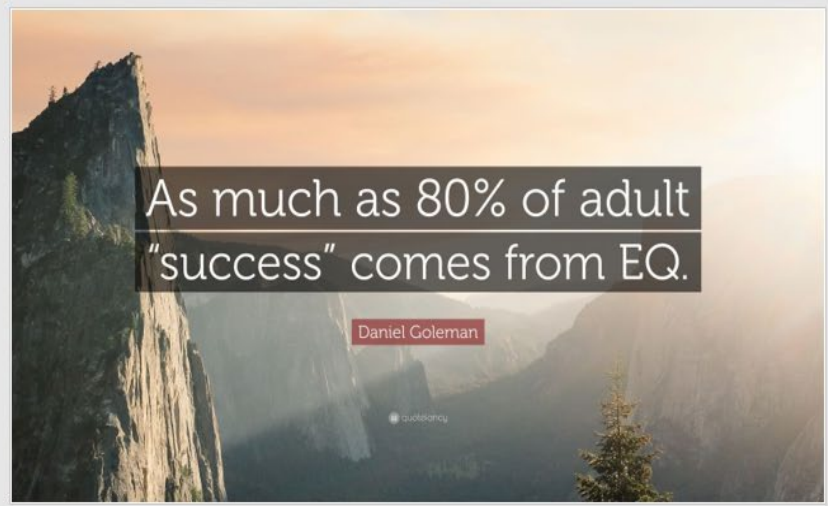
1


EMOTIONAL INTELLIGENCE
STATISTIC
90%
OF TOP PERFORMERS HAVE HIGH EQ
EQ IS RESPONSIBLE FOR
58%
OF YOUR JOB PERFORMANCE
$29,000
PEOPLE WITH HIGH EQ MAKE $29,000 MORE ANUALLY THAN THEIR LOW EQ COUNTERPARTS
BY DR TRAVIS BRADBERRY

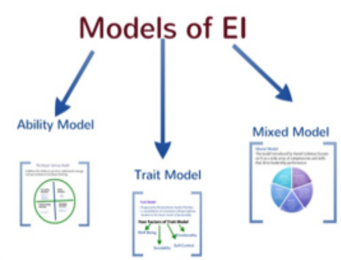
2


CEOs are hired for their intellect
and business expertise – and fired
for a lack of emotional intelligence.
Daniel Goleman

3


As much as 80% of adult
"success" comes from EQ.
Daniel Goleman

4




5

"Emotional intelligence is the ability to monitor one's own and others' feelings, to discrimintate among them and to use this information to guide one's thinking and action."

(Mayer & Salovey 1990; Mayer & Salovey, 1997)

6

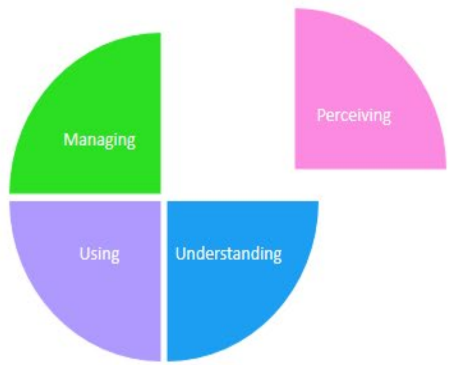
RULER

- *R*ecognizing emotions in oneself and others;
- *U*nderstanding the causes and consequences of emotions;
- Labelling emotional experiences with an accurate and diverse vocabulary;
- and *E*xpressing and *R*egulating emotions in ways that promote growth.

(Brackett, 2005)

7


8

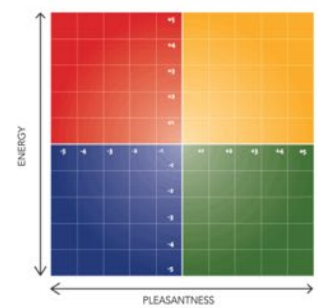



9

How would you describe your life in 6 words?

10


11




12

13

14

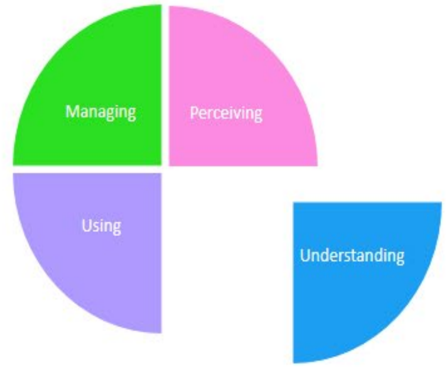
After perceiving of own and others' emotions comes…

15

Sharing emotions! ...but how?

16


17

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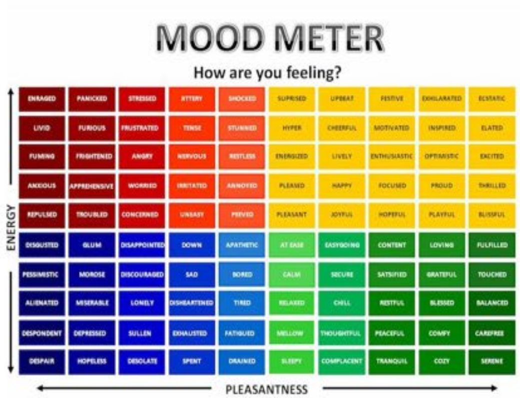


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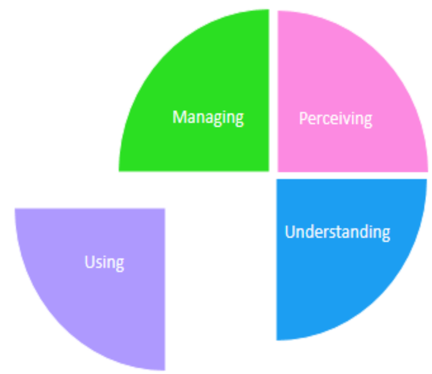
Difference jealousy and envy?

20

21




22

Come up with as many possible uses for an electric kettle as possible

23

What pessimistic and optimistic thought came to mind?

Where they helpful and why or why not?

24

What emotions and feelings did you experience?

Were they helpful and why or why not?

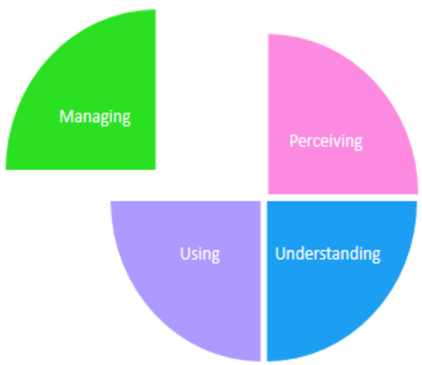
Did you try and feel differently at times? And why?

25


Solve problems with
The Blueprint

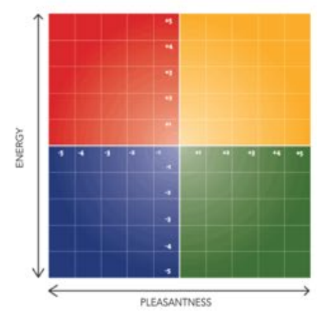
| | | |
|---|---|---|
| Describe | What happened? | |
| RULER Skill | Me | Other Person |
| Recognize & Label | How did I feel? | How did ___ feel? |
| Understand | What caused my feelings? | What caused ___'s feelings? |
| Express & Regulate | How did I express and regulate my feelings? | How did ___ express and regulate his/her feelings? |
| Reflect & Plan | What could I have done to handle the situation better? What can I do now? | |

26




27


28




29

## RED

If you're feeling...
Irritated
Angry
Frustrated
Stressed
Anxious

Now is a good time to write a persuasive argument or advocate for something you believe in. Being a little in the red helps us get things done or rise to a challenge.

**Want to move out of the red?**

Try going for a walk, listening to your favorite music, or taking a few slow deep breaths to clear your head and calm your body. Use self-talk (e.g., "This is part of my day, but it does not define my day"). If someone else is involved in a situation that puts you in the red, take a moment to think about their feelings or perspective.

## BLUE

If you're feeling...
Sad
Discouraged
Disappointed
Depressed
Bored

Now is a good time to work on a project by yourself, especially a project including proof-reading, editing, or critical thinking. Being in the blue helps us feel empathy.

**Want to move out of the blue?**

Try listening to music, talking with a friend or coworker, or having a snack or coffee. Use self-talk to remind yourself of the big picture or try positive reframing - putting a positive spin on a situation. If someone else is involved in a situation that puts you in the blue, take a moment to think about their feelings or perspective.

## YELLOW

If you're feeling...
Happy
Motivated
Energetic
Productive
Excited

Now is a good time to start a new project, have a brainstorming or problem-solving session with your team, or work on a creative project. Being in the yellow is a good place to be for checking things off your to-do list!

**Want to move out of the yellow?**

Try turning one of your meetings into a walking meeting to use some energy. Take slow deep breaths, listen to calm music, or move to a workspace where you can be alone (if possible).

## GREEN

If you're feeling...
Cooperative
Peaceful
Calm
Safe
Relaxed

Being in the green is a good place to be for concentration and productivity. Being in the green is also a great place to be for working collaboratively, giving or receiving feedback, and taking time for self-reflection.

**Want to move out of the green?**

Try listening to upbeat music and standing up to get some blood flowing. Take a walk to boost your energy and get some fresh air. Use self-talk to remind yourself of something that inspires you about your work.

30

31


32

# INDIVIDUAL CHANGE PROJECT

"Helping a charity organisation be in unison again"

WIEBKE HOPPE, S1858386

MODULE 6: LEARNING BY DOING, PROCESSES OF CHANGE

BACHELOR HONOURS PROGRAMME, UNIVERSITY OF TWENTE.

# UNISONO E.V.

**History**

In 2012, the band *Unisono* was founded by L., a German boy in high school who had the idea of combining his passion for music with a good purpose – collecting money for charity projects in Africa. Soon, he found other adolescents, mainly friends of L. or people he knew through a network of people interested in music, who would like to join the project. The project started as a choir of approximately 25 young people between 15 and 18 years of age, which was supported by a piano and drums. After a successful first concert, some people of the original choir left, while some new people joined. It was decided to supplement the choir with a band consisting of more instruments than just piano and drums for upcoming concerts. What started as a project with people barely knowing each other became a cohesive team over the following years, with people who were not as motivated and committed to the project leaving the group one by one.

The project became a registered association in 2013. This meant that from then on, the *Unisono e.V.* had a board as well as more things to take care of in terms of organisation. However, from the start on, L. was the leader of the project who took over most of the tasks that there were, including e.g. the organisation of concerts and writing the arrangements for the band. His ambitions for the project and all the effort he put into it pushed Unisono forward at a quite fast pace. He, however, rarely involved other group members in open tasks or even decisions to be made. On the one hand, he did a good job leading the project, but on the other hand, increasing frustration among group members who also wanted to be involved in decisions and contribute more than just the musical part led to frequent conflicts in the group. Eventually, as the project became bigger, the work load became too much for him and in 2016, he made the drastic decision of leaving the whole project, in the role of a leader as well as of the pianist.

The following time was characterised by the implementation of some radical changes in the organisation of the project. A new leader was chosen, me, acting as a coordinator of all tasks that need to be fulfilled. However, given that I was and am not able to put in as much time and effort as L. did, it was clear that the tasks needed to be distributed if the team wanted to continue the project. In a crisis meeting, all team members agreed that their passion for the project made them willing to take over responsibility and a solution regarding a task division was found. The result of this change were greater feelings of belonging to the group for almost all group members, higher commitment as well as higher awareness of the effort that needs to be and is put in such a project by its members.

**Current situation**

Currently, the group consists of 12 band members as well as around ten additional members of the association that function as helpers in terms of more practical or organising activities when needed. The band members represent the core of the project, being six female singers and six male musicians aged 18 to 25 years. The board of the association includes a chairwoman (me), a vice chairman, a treasurer, and a secretary. The organisation is divided into "subteams" that are responsible for a specific set of tasks: There is a team for organising gigs and contact with people who want to book the band for private or public events; one for the preparation and planning of rehearsals, setlists and arrangements; one for promotion, promotion material, publicity, social media and writing texts e.g. for the press; and individual members have further tasks that they are responsible for, e.g. the treasurer takes care of all activities related to the finances of the organisation including the recruitment of sponsors, while I as the chairwoman function as a coordinator of everything. My tasks include making action plans, organising and leading team meetings, delegating tasks, check whether tasks are executed properly and in time, responding to phone calls and mails from people contacting the project, as well as being part of almost all the subteams. Moreover, all band members also need to rehearse the songs on their own. Rehearsals take place every two weeks for four hours, and every group member further spends many hours on their tasks in addition to this.

The band plays cover songs in order to be flexible in terms of pleasing the audience, as the goal is to be liked by people who then donate money to the charity project in South Africa Unisono is supporting at the moment. The band can be booked for private parties, weddings, open-air concerts, and almost all other types of events. The band members enjoy new challenges and have fun playing at also quite unusual gigs, taking almost every opportunity to play and collect money for charity. Thereby, the band members do not earn any money for themselves and every cent collected is either donated or put into the association's equipment acquisitions. While having started as a band of rather poor musical quality, the band improved considerably and gained quite some local attention and appreciation by now.

The money collected is, since 2013, donated to a school in Cape Town in South Africa for children from low-income families who come from the city's townships or who have learning difficulties. Working together with another local organisation whose members frequently go to Cape Town personally, Unisono has close contact with the leaders of the school and receives regular updates about the school's advances as well as letters of gratitude or paintings the children made as a means of thanking for the support. Several times, group members also visited the school themselves, which lead to high feelings of connection and commitment to the South African project. In particular, Unisono finances the wage of three teachers of the school. In total, Unisono was able to collect more than 50.000 Euros for charity projects in Africa so far. For their work and for their music, they were awarded with several prices on local as well as on national level.

The group is held together by very close friendships, as the members also spend much time together privately, apart from activities related to the project. The self-identification as members of Unisono and the family culture lead to high commitment to the project, but sometimes also make it hard to work together when criticism is expressed and people feel personally attacked. The group feels proud of their achievements and continues to be able to manage keeping the project going, although the members are e.g. studying in different cities. While some members value the activity of playing music together the most, some other members regard helping other people as the most important aspect of Unisono.

# NEED FOR CHANGE

Despite their success, not everything within the organisation is going well. Conflicts arise frequently when it comes to organising something and not all work processes are executed in perfect ways. Communication between the group members is characterised by people holding back their true opinions or experiences, on the other hand sometimes being too direct or not expressing enough appreciation of others' work. At times, rehearsals have tense atmospheres that hinder the group of enjoying their time working on the charity project, while instead, this voluntary project should be more rewarding to all group members investing time and effort into it. Me as the leader of the group in particular, paying special attention to the group atmosphere, I often experience tensions between the team members as well as even dissatisfaction of some. When trying to come up with new ambitions, some group members seem unmotivated and less willing to invest time than it was the case some time ago.

**Survey**

Since L. left the organisation and the group had the crisis meeting which defined Unisono's future from 2016 on, there has not been frequent and deep evaluation and reflection of how well the team is performing or how members feel in the group. As a means of finding out what team members perceive as current issues that require change, a simple and anonymous survey was conducted among the group members, which in essence consisted of the following open questions [roughly translated from German]: "What are Unisono's top five strengths?" and "What are Unisono's top five weaknesses?". The results were taken as a basis and input for the change project I conducted within Unisono as part of the final module of the Processes of Change Bachelor Honours Programme of the University of Twente.

The results of the survey included quite some variation, but also some common themes emerged. Within the scope of this change project, the focus will be on two of those relevant themes. The first theme labelled *feedback* ranged around aspects like a tense atmosphere, missing (positive) feedback, and how criticism is dealt with. Specifically, this theme included responses like "everything is taken personal", "too little appreciation of good performances", "unnecessary conflicts around minor issues" as well as "often tense atmosphere at rehearsals" mentioned as weaknesses of Unisono's team. Due to the fact that eight out of twelve group members included a response belonging to this theme in their list of weaknesses, this seems to be the most important issue present in the group currently. As I have also experienced this tense atmosphere at several occasions, it can be interpreted from this that the way feedback is given among group members is done unsatisfactorily and positive feedback is given too less. Moreover, feedback is often not received well, as people often feel personally attacked and do not take on the criticism. This results in dissatisfaction, annoyance, disharmony, and conflicts, which the group members would like to change.

The second theme labelled *motivation* revolves around issues like difference in ambitions and goals and lacking motivation. Statements included “differences in the prioritisation of the project”, “lethargy concerning spontaneous activities”, “different ambitions” mentioned as weaknesses, but also “devotion to the project”, “motivation”, “ambition”, and “similar goals” mentioned as strengths of the group. Within this theme, it is critical that some members perceive it as a problem, while other members regard this as one of the positive aspects of Unisono. Views seem to differ and some may not be aware that others see lacking motivation and different goals as a problem. When people feel that some are more motivated than others, this may result in less motivation of those people who initially were more motivated than others. Furthermore, when goals are not aligned, team members have a hard time finding a way of working on their goals together, as some have different ambitions than others. Some may be willing to put more effort into the project, as they have high goals, while others would only like to continue as currently and do not strive for higher goals, which might in turn frustrate people who want to achieve more with the project.

Positively, the results of the survey also indicated that most of the members enjoy Unisono because of the friendships and cohesion experienced in the group. Further, the group members stated that the group is well able to solve problems together and work constructively on things the group wants to achieve, in a good working climate and with fun due to the activities and music done together. This shows that although the group experiences some difficulties, it also has its resources that may facilitate the group in overcoming these difficulties together.

| **Feedback** | **Motivation** |
| --- | --- |
| – “everything is taken personal” | – “differences in the prioritisation of the project” |
| – “too little appreciation of good performances” | – “differences in value placed on project” |
| – “unnecessary conflicts around minor issues” | – “lethargy concerning spontaneous activities” |
| – “often tense atmosphere (at rehearsals)” | – “different ambitions” |
| – “lack of ability to accept criticism” | |
| – “conflicts” | |
| | + “devotion to the project” |
| | + “willingness to make sacrifices for the project” |
| | + “motivation” |
| | + “ambition” |
| | + “similar goals” |

**Theoretical considerations**

When looking at the results of the initial survey, it becomes clear that there are conflicts within the group. As the literature shows, conflict itself is not necessarily a negative thing (Jehn, 1997), even if it is seen as that by the group. Therefore, it might be useful to classify the types of conflict present in the group in order to assess the need for change.

In the literature, there is a distinction between three different conflict types: *task-focused conflict*, *process-focused conflict*, and *relationship-focused conflict* (Jehn, 1997). While task conflict is about disagreements concerning the task itself, i.e. *what* is done, e.g. one person would prefer a different choice than another person and they argue about it, process conflict deals with *how* the task is done, that means the group members would argue about the procedure with which the task is approached or about the task division. According to Jehn (1997), task and process conflict can, however, develop into becoming a relationship conflict. The author explains that this may for example happen if conflicts about the task or process cause group members to dislike each other or if group members are unable to distinguish between the disagreement about the task and the personal relationship between them and feel attacked on a personal level. They may attribute criticism that is voiced about their work performance to their person as a whole.

The different conflict types have different effects on the group's effectiveness (Jehn, 1997). A moderate level of task or process conflict can be beneficial for the group as it increases the quality of the procedure and product as well as more constructive discussions are induced in comparison to an absence of task or process conflict (Jehn, 1997). However, the author states that a high level of task or process conflict can cause group members to be too focused on the conflict and productivity is likely to be lower than with a moderate level of task or process conflict. Relationship conflict, in contrast, is thoroughly evaluated negatively by Jehn (1997). If a group is in relationship conflict, this implies that the group is hindered to focus on the task and is preoccupied with interpersonal issues (Evan, 1965, as cited in Jehn, 1997), such as power, threats, and attempts to resolve the conflicts (Jehn, 1997). As a consequence, according to Jehn (1997), group members are likely to feel dissatisfied, angry, and experience other negative emotions. If relationship conflict becomes chronic, this can have a serious negative impact on the group and it is questionable if it could continue functioning (Coser, 1956, as cited in Jehn, 1997).

The survey results indicate that in this group, conflict can be found. The group seems to evaluate these conflicts negatively and many members see them as the strongest weakness of the team. Therefore, conflicts seem to appear frequently and make the team members feel angry, sad, or dissatisfied. From this survey, it is hard to derive what these conflicts are about. However, it becomes clear that relationship conflict is involved. The presence of relationship conflict is especially indicated by quotes like "everything is taken personal" and "lack of ability to accept criticism": The group members seem to voice criticism against each other, which is, however, received as personal attacks. As a result, the atmosphere is tense ("often tense atmosphere [at rehearsals]") and the group members can enjoy their free time spent for this common charity work less. As explained before, the presence of relationship conflict can be detrimental for the group, especially if this problem is not tackled and becomes chronic. The group members need to learn to keep conflicts on a task- or process-focused level and avoid conflicts on the personal relationship level. The change approach should therefore include a way to help the group reduce relationship conflict.

One way to do this is to include a form of conflict management. As explained by Tekleab, Quigley, and Tesluk (2009), if teams openly discuss their problems and conflicts, this increases their effectiveness and focus on the task at hand. Moreover, the authors state that in this way, understanding among the group members can be increased. Importantly, this active approach to conflicts increases the team's *cohesion,* which in turn has been shown, besides enhancing effectiveness and productivity of the team, to improve how well group members feel in the group (Tekleab et al., 2009). In essence, if there is relationship conflict, conflict management can help reduce the detrimental impact of it and make group members more satisfied and committed to the group, as the authors further describe. This effect may be influenced by people's fundamental *need to belong* (Baumeister & Leary, 1995, as cited in Tekleab et al., 2009)*:* If they feel more part of a group and belonging to the group, they are more satisfied about being in the group and want to stay in the group (Tekleab et al., 2009). This point is also crucial in tackling the motivational deficits of the group. If team cohesion can be increased, commitment to and motivation for the project can be increased as well.

We can conclude from this that the group of Unisono might benefit from an open discussion of the conflicts between its members. By now, some conflicts are not openly discussed or some viewpoints are kept under the surface, while the negative emotions about it grow and grow until the respective group member feels strongly dissatisfied. Therefore, there needs to be made room for all group members to explain what they feel negatively about concerning the group, so that the group is first made aware of the problems and conflicts, and can then discuss these openly. In order for such a discussion and subsequent conflict management after the end of the official change project to be successful, it needs to be ensured that the group members are capable of taking part in a talk about the conflict and to be able to explain their view in such a way that the others understand and do not feel offended: Feedback skills are needed. As becomes clear from the survey results, the group members already realised that some of them lack the ability to receive feedback without feeling personally attacked, but maybe also the ability to give appropriate feedback that avoids sounding offending to others is lacking. This should therefore also be tackled in the change approach. Especially learning to give positive feedback might benefit the group, as it has shown to increase positive affect and commitment to the group (Belschak & Den Hartog, 2009).

Besides increasing team cohesion, additional strategies with the purpose of enhancing group members' motivation and commitment to the project can be found in the literature. For example, setting common goals for the group has been shown to increase the level of identification with the group (Wegge & Haslam, 2004). Furthermore, when goals are aligned among the group, the group's success means more for the group members and they are more motivated to work for a better group performance (Wegge & Haslam, 2009). This means that by formulating common group goals, the members' motivation can be increased. In the survey results, it also becomes apparent that there are "different ambitions" and differences in goals and importance placed on the project among group members. Common goals seem to be lacking and therefore, the group might be in need of some. The change approach should thus include goal alignment among the team members in order to address the need for change concerning their motivation.

# CHANGE GOALS

1. **Awareness**
   *Raising the group members' awareness of the perceptions of the group by other group members.*

2. **Ability**
   *Making the group members feel capable of providing and receiving feedback adequately.*

3. **Ambition**
   *Aligning the group members' goals and ambitions and consequently raising their motivation (for change).*

**Awareness**

What one could derive from the results of the survey conducted were three things: First, the group members' perception of the group were quite diverse and sometimes contradicting, indicating a low level of awareness of how other group members might perceive the current situation, which was especially the case concerning the theme of goal alignment and motivation. Therefore, it was decided that it is necessary to raise the group members' awareness of how other group members perceive the team and what kind of problems they see in the project, in order to enable everyone to respond and adapt to other people's wishes for improvement. Furthermore, becoming aware of problems is the first step in order to successfully manage a conflict. With the aim of reducing relationship conflict, in this way, open discussion of conflict themes is promoted.

**Ability**

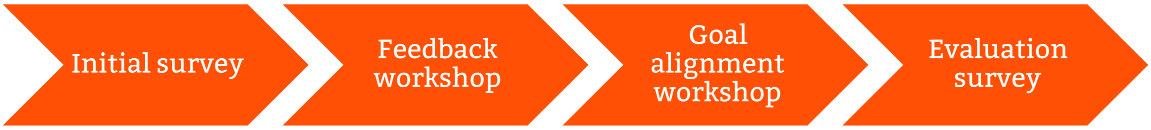
Secondly, the way feedback is expressed and taken on is dissatisfactory in that voiced criticism is often taken personally and leads to tensions and conflicts. The group members seem to lack the abilities to receive feedback as well as to give feedback in an adequate and constructive way. Providing them with tools and abilities to give and receive feedback will help the voicing of criticism to be less stressful for the group and its atmosphere. When feedback is given adequately and received in an open way, people should feel less personally attacked and instead, feedback can be used for taking steps towards improvement. In addition, giving more positive feedback to each other should result in stronger feelings of being appreciated by the group and a stronger team bonding. If people are able to express their opinions in an appropriate way, open discussions about group problems can help reduce relationship conflict.

**Ambition**

Third, the groups members have differing views on how well the members' goals concerning the project are aligned. Some think that they have similar goals, whereas other members feel like some prioritise the project higher than others and some are more motivated and ambitious than others. Aligning their goals and formulating one common goal to strive for should make the groups more motivated, as they realise that they are working on a goal in collaboration, instead of having the feeling of fighting for something on their own. In order to increase commitment and motivation, common goals need to be established.

# CHANGE APPROACH

The change project was implemented in two sessions taking place after rehearsals of the band, with six days between the first and the second session. In order to target the three change goals, it was decided to design two workshops, the first one being a feedback workshop, the second one a workshop aimed at goal alignment of the group members. In both of these workshops, some results of the survey would be revealed to the group and reflected on in the group. In this way, the goal of raising the awareness of the perceptions of the group by the respective other group members was addressed.




**Feedback workshop**

Aimed at giving the group members the ability to give and receive feedback adequately, a feedback workshop was designed. The first session lasted around 75 minutes in total and started with a round in which every group member quickly stated how he or she was feeling this day or what was going on in their minds in order to enable everyone to express him- or herself and then to start concentrating on the workshop. The group was shown quotations of the theme *feedback* that emerged within the survey results and given the opportunity to reflect on it (targeting the goal of *awareness*). They all agreed on the relevance of the topic, then I, as the leader of the workshop, drew the conclusion that there was a need to work on how to express and accept criticism as well as praises.  Subsequently, some theory was presented to the group. As a means of showing the group members how important feedback can be, the *Jahori window* (Luft, 1982) was introduced. With the help of a schema, it was explained to them that in order to be able to shed light on one's *blind spots*, feedback is needed from others and therefore, one can be grateful for every feedback one receives.

Next, an exercise (Beraterkreis – systemisches Coaching und Organisationsentwicklung, n.d.) was done in pairs. In accordance with the instructions of the original exercise by Beraterkreis – systemisches Coaching und Organisationsentwicklung (n.d.), while one partner was just sitting on a chair looking at the person sitting face-to-face to him or her, the other partner was instructed to describe everything he/she saw the other person doing or looking like (e.g. "you are crossing your legs") for a minute, then the roles of the two were changed. After this round, the group was encouraged to reflect on the experience. The group members expressed that it was not an easy and sometimes funny exercise, then, I voiced my observation that although the instruction was to only describe what one was seeing neutrally, people also said things that included an evaluation of what one saw. The group was instructed to do a second round of describing each other, but with the addition that now, one should also provide an interpretation what one was seeing (e.g. "you are crossing your legs and I think that is comfortable for you"), followed by a quick reflection round. In a third round, the group members were additionally instructed to give an evaluation of what they saw (e.g. "you are crossing your legs, I think that is comfortable for you and I like seeing you relaxed"). In the final reflection round of this exercise, the group members stressed that it was a tough exercise. As a conclusion of the exercise, it was said that people tend to jump to conclusions too quickly and make fast judgments about everything they see, which is to be avoided in order to stay objective. Further, I told them that being able to describe concretely what kind of behaviour one is able to see is an important ingredient of the ability to give feedback.

After that, two models of giving feedback as well as rules about giving and receiving feedback were introduced to the group. The first model consisted of the three elements *Situation – Action – Reaction* (Beraterkreis – systemisches Coaching und Organisationsentwicklung, n.d.), which should be addressed in every bit of feedback that is provided to someone. *Situation* refers to the context in which a specific aspect that feedback is given on happened. In the *Action* part of the feedback, the concrete and observable behaviour the person showed is described. Lastly, the feedback-giver should describe the effect on him-/herself or on other people of that behaviour, which refers to the *Reaction.* This model was combined with a second model, which included three concepts that should be present in every feedback: *perception, effect,* and *wish/request* (Beraterkreis – systemisches Coaching und Organisationsentwicklung, n.d.). The concept of *perception* basically includes *Situation* and *Action* of the first model, while *effect* is comparable with *Reaction.* The second model however extends the first by further incorporating a *wish* or *request* one might express after the other steps. This means that one might tell the other person that he/she wishes or demands that the other person changes his/her behaviour in accordance with the feedback provided. These models, in combination with a set of rules for giving and receiving feedback were used in order to give the group members tools for giving feedback themselves.

In a subsequent exercise, the group members could put their newly acquired knowledge about feedback into practice. The exercise was derived from a workshop led by Wouter Keijser in the PoC course "Effective Leadership in Organizations". The group was split into three groups of each three to four people. In each group, A was instructed to provide fictitious negative feedback to B, while C (and D) were observers. After the feedback was provided, B and C (and D) gave feedback to A on how well he/she provided the feedback to B as well as suggestions for improvement. Then, the roles were changed until everyone had provided feedback once. In this way, the group members were able to practice the new skills and later reflect on their experience with it.

As a concluding exercise after a round of reflection, the group members were instructed to each find a partner with whom he/she has less frequent contact than with others from the group and give him/her honest positive feedback, then the partner also gave positive feedback in return. This was repeated until everyone gave positive feedback to three different people. The last exercise was chosen in order to give a positive outlook at the end of the workshop, as the main focus was on negative feedback and criticism at the beginning. However, the group members also should learn to give each other positive feedback and compliments more often, as this further improves the group atmosphere and comfortableness within the group of each of its members. The exercise was further used as a means of increasing the bonding between the group members, especially between the ones who were less close to each other before.

In a final reflection round, the group members said that they especially enjoyed the positive feedback exercise, but also learned and felt more able to provide and received feedback through the negative feedback exercise. The group members were asked for their personal conclusions of the workshop. The members mentioned it was good and helpful to refresh their feedback abilities, that they think that it is hard to always stick to the scheme of the models in practice, but that it can help to think of it when giving feedback, as well as that they plan to express positive feedback more often in the future.

**Goal alignment workshop**

In the second session of the change project, the goal of *ambition* was addressed, aimed at aligning the group members' goals and ambitions and as a consequence, increase their motivation for the project itself as well as for changing certain things in order to improve. In a "dreaming" session, the group members were handed cards and pens and a poster with a cloud drawn on it was placed on the table. While some music was played in order to create a relaxed atmosphere, everyone was given considerable time to think about and write down on their cards 1. what Unisono means to them personally, 2. what they wish Unisono to be like, and 3. what they want to achieve with Unisono.

After everyone was done collecting their ideas individually, everyone was given the opportunity to present what he/she wrote down and lay the cards in the cloud on the poster, so that everyone could read it. The group members were instructed to sort the cards in such a way, that cards with similar aspects on it were placed next to each other in the cloud. After everyone presented their own thoughts, the group was given some time to read over all the statements again and then reflect on which similarities as well as differences they discovered.

The group then was able to have a look at all the results of the survey conducted before the workshops, which were presented sorted as themes by the leader. With this, the awareness of the perceptions of other groups members of the group was raised. In an open discussion, it was then talked about how one can deal with the problems discovered, with goal differences as well as on which common goals the group can agree and focus in the future. Finally, one common goal was formulated together: “growing together” (in German: “zusammen wachsen”). In this way, the group’s goals were aligned in one summarising goal that all members agreed on, which hopefully raised their level of ambition and motivation to achieve this common goal together. The group members then discussed further steps to take after these two workshops in order to address the remaining issues that became visible through the survey results.

**Assessment of the outcomes**

In order to assess the results of the change project and whether the goals were achieved, an anonymous follow-up survey was conducted. In this survey, the group members were asked questions about how well they think they know how other people are feeling in the group (*awareness*), how capable they feel of giving feedback (*ability*), how they think their own goals and ambitions concerning the project match the ones of the others and whether this has improved since the goal alignment workshop, as well as about how high their motivation for the project is (*ambition*). Responses could be given on five-point Likert-type scales as well as in the group members’ own words (see Appendix).

# RESULTS

The workshops were well received by the group members. In an open atmosphere, all members tried to apply the feedback methods and talked openly about their view on the group as well as about their own goals concerning the project in the goal alignment workshop. In the evaluations of the workshops directly at the end of each workshop, they stated that they thought the workshops were useful and helped them improve the group's situation in the future. The outcomes of the evaluation survey provide similar results.

**Awareness**

Several questions of the survey were targeted at assessing the extent to which the goal of awareness was achieved through the change project. The results indicated that the intervention succeeded in raising the group members' awareness about other group members' perspectives on the group. Nine out of ten members indicated that they gained more insight into the others' views on the group as well as that they now are more aware of how certain behaviours might be received by others in the group. Most members answered the question whether the results of the initial survey were surprising to them with "slightly disagree", showing that the results might not have been new to them, but awareness might have still been increased by making the issues salient again.

**Ability**

Additional questions aimed to evaluate whether the group members' ability to give and receive feedback was improved. The results were rather mixed. For example, a question asking whether they feel more capable of giving feedback now was answered with "slightly disagree" by two people, with a neutral response by five people and three people indicated that they "slightly agree". The question of whether they learned something new in terms of how to avoid conflicts in the future received even more mixed responses. Therefore, it can be concluded that for some it was valuable to teach them some feedback skills, while others did not profit from it much. For some of the members, the goal of ability was therefore achieved. For the rest it remains unclear: The survey did not include a question whether they felt capable of giving and receiving feedback already before the workshop, so a definite answer on whether all members now feel capable of it can, unfortunately, not be provided.

**Ambition**

The goal of ambition seems to have been fully achieved, according to the results of the survey. Specifically, seven out of ten members indicated to agree with the statement that they are ambitious to achieve Unisono's goals, while two more agree with it slightly. Six of the members seem to be fully able to identify with the common goal "growing together", and three indicated to agree slightly with being able to identify with it. Nine members responded with agreeing or slightly agreeing with being motivated to work towards achieving Unisono's goals. Successfully, a common goal was found that every member can, at least, slightly identify with. In addition, the motivation among the group members seems to be high.

**Future steps**

The group had a look at all the results of the first survey and decided on some concrete steps to take in the future. First of all, they decided to deliberately try to give feedback to other group members more frequently. Concretely, the group plans to give positive as well as, if needed, negative feedback to each other after each song played at a rehearsal. That means that if someone did a good performance, he or she should be told about this positive impression and be encouraged to continue performing like this in the future. If someone thinks that one group member could have played a song or a specific part of it better or differently, he or she should tell the person and ideally also suggest how to do it better or differently in the future. Moreover, the group also wants to actively ask for feedback more often. In a rehearsal, everyone intends to ask others what they think about the way the song was played or about one's individual performance. In the past, mostly the instrumentalists commented on aspects like that, so in the future, all members should be involved by asking them to give their opinion.

The group liked the techniques they learned in the feedback workshop and now plans to apply these every time the members give or receive feedback. The group members, however, also said that some techniques can be impractical for giving quick feedback. Therefore, if not much time is given for giving extensive feedback, the group decided that a short comment should at least be formulated from the "I"-perspective, i.e. from the perspective of the person who gives the feedback (e.g. "I liked how you played your solo." instead of "You played your solo well."). If, however, someone wants to give e.g. negative feedback he or she fears could make the person feel uncomfortable, he or she should talk to the person in private after a meeting and apply the feedback technique in order to be able to provide feedback that is explained well and can be understood by the receiver.

Further, the group wants to set up evaluation meetings more regularly in order to discuss how everyone is feeling in the group, what could be improved and which plans can be made. The group decided that the feedback methods in rehearsals etc. are put into practice for some weeks and then, an evaluation meeting is set up with the purpose of discussing how well the feedback methods are applied and whether there should be any change of plans. In this way, it is expected to better avoid relationship conflict in the future.

In order to be constantly reminded of our common goal "growing together" and thereby increase motivation, the groups wants to hang up a poster in our rehearsal room on which this goal is written down. The room should also be decorated with photos and other posters in order to increase the comfortableness and feeling that the room as well as shared memories are something that belong to the group as a whole. Group identification and, as a consequence, commitment to it is aimed to be promoted.

Lastly, the group will participate in a workshop aimed at helping bands advance their play together and will use this also as an opportunity for teambuilding by spending time together in the evenings and enjoy being creative as a team. A higher level of team cohesion is expected to eventually increase commitment to and motivation for the project. In essence, in the future, it is of special importance to foster team cohesion and avoid relationship conflict in the group of Unisono.

# LEARNING EXPERIENCE

The change project I planned and implemented during this course of the Processes of Change Honours track enabled me to learn many different things: I gained insights about my project, about teams in general, about leadership, and about myself, through carrying out the project as well as through reflections I made, guided by my personal coach. Most importantly, I rediscovered my passion for the project Unisono. While talking to my coach, I realised how much the group, the well-being of the group members, the project, and the project's success mean to me. I learned that even though I might go through hardships in my role as a leader at times, my passion for the project helps me find the strength to activate all the resources this team has in order to get on track again.

However, I often expect much from others, e.g. the same level of commitment or motivation, and am sometimes confronted with disappointment in that respect. My passion for what is important to me might be my personal strength, but I need to learn not to project this on others. Instead, I need to learn to accept that other people might be passionate for other things. This does not mean that I am not allowed to feel strong commitment to the project, although other members do not feel it as strongly as I do. What I should do is use my passion to increase other people's motivation without pushing them. In this change project, I managed to do this by letting the others speak, during the goal alignment workshop in the open discussion phase.

One important point I learned with regards to team functioning is that open communication seems to be the key to solving any kind of problem. I learned that it is impossible for a team to always work together perfectly, but that it is possible to manage the difficulties a team is facing; as long as the team members feel committed to the project and the group. It is the way the problem is dealt with that matters. If concerns remain unspoken and conflicts are not openly discussed, problems cannot be solved. In this change project, a discussion of every member's perception of the group helped solving issues that bothered some of the members and afterwards, many of them approached me and told me how good it felt to finally have the chance to talk about these issues with the whole group. Therefore, in the future, I will keep encouraging everyone to say what is on their mind.

However, I should also tell the others what is on my own mind as well: If I want the group members to share my ambitions and support the project, I need to share more often how important the project and the people are to me and show appreciation for the work and effort the other members put into Unisono. In this way, the other group members might be better able to understand my motifs when I act in a certain – maybe pushing or demanding – way in my role as a leader, but also I would communicate how important the others are for the project. Hopefully, this would make them feel more involved and motivated, which remains my personal goal as a leader of this group.

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# APPENDIX

**Evaluation survey results**

N = 10

1 = Disagree, 2 = Slightly disagree, 3 = Neutral, 4 = Slightly agree, 5 = Agree

Translated from German to English.

| Question | Mean | Standard Deviation |
|---|---|---|
| 1. Now, after the two workshops, I feel more comfortable in the group than before the workshops. | 3,40 | 0,97 |
| 2. Some of the results of the initial survey surprised me. | 2,80 | 1,23 |
| 3. For the future, I feel better able to give feedback to others. | 3,10 | 0,74 |
| 4. I gained insights into how others feel in the group. | 4,20 | 0,63 |
| 5. I learned something new about how to avoid conflicts in the future. | 3,20 | 1,03 |
| 6. I have an ambition to achieve Unisono's common goals. | 4,50 | 0,97 |
| 7. The methods I learned in the feedback workshops will be useful for me in the future. | 3,50 | 1,08 |
| 8. Sharing my view on the group with the others did me good. [N = 9] | 3,89 | 0,93 |
| 9. I can identify with Unisono's goal ("growing together"). [N = 9] | 4,67 | 0,50 |
| 10. I am more aware about how others might perceive certain behaviours or expressions of mine. | 4,10 | 0,57 |
| 11. I am motivated to work for the achievement of Unisono's goals. | 4,50 | 0,71 |
| 12. Receiving positive feedback from others gave me a good feeling. | 4,00 | 1,25 |
| 13. Our group grew together more closely due to the workshops. | 3,90 | 0,74 |

# ‘Stress management’ among students

Report about my change project in regard to the last PoC course ‘Learning by Doing’

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## Introduction

The term ‘stress’ probably is one every student is concerned with. Never ending assignments, upcoming exams and group meetings all make us feeling stressed once in a while. Next to this there might be the part time job we are doing, the household which needs to be done, and our friends wanting to see us. At some points in our life, these aspects together with our own personal stressors just are too much. Consequently, we might feel tired, fatigued, tensed, nervous, or even experience sleeping difficulties. Moreover, we might get impatient, worried, anxious, overwhelmed or sad. In short: we are stressed out.

Research recognizes that it might be hard to give the term ‘stress’ a general definition. As indicated above, stress can be experienced differently within every individual. Some readers might find themselves in the physical and psychological stress signs as stated above, others may experience very different responses. However, a general and fitting definition might be the following: “[stress is] the non-specific response of the body to any demand made upon it” (Selye, 1993). It is the response to one or more so called ‘stressors’ in our environment or in ourselves. No matter how it is defined, most people will agree that their experience of stress at some point can seriously infer with their mental and physical wellbeing. I experience this myself and even more often see it with my fellow students. Especially in the beginning and towards the end of a study year, they become agitated, tired, lethargic and overwhelmed. Experiencing these feelings to such an extent already in young years is frightening and not desirable.

Consequently, I came to the insight that this topic is a valuable one to start the plans for my change project for. Especially with the module ‘Learning by doing’ being in the end of a study year, the time is more than suitable to intervene in or help students with the stress they experience. I came to this insight not only by myself but also by the help of my personal UT coach. In the first session she asked me what I would like to change in my life that we could talk about. I said that I am quite stressed lately, as I feel not able to stick to my time schedule and postpone my work until I have to do everything at once. This gives me a lot of internal as well as external pressure. I figured out that these problems might arise due to my worse skills in managing my time, and together we developed an approach that helps to improve these skills. I am considerably less stressed since, which significantly increased my wellbeing. These discussions also triggered me to find out more about the topic of stress management, and I was impressed how many different and partly even simple techniques there are. For instance, simple breathing exercises already can have a large impact if executed continually.

As a result, I decided conclusively to focus my change project on the topic ‘stress management’ in students. Personal experience let me realize that it might be possible to create with some thought- provoking impulses and even simple techniques a significant change in the level of experienced stress and general wellbeing of students. To define the target group more specifically, I decided to focus my change project on first and second year psychology students. The main reason for this is that I am a second year psychology student myself and might therefore empathise most with those students. I know the work and task they have to do and also the typical struggles and problems they encounter. This will be helpful to attune to the target group and develop a project that is fruitful and adjusted to them. Moreover, I aimed to implement my change project in a way that is fruitful but also reasonable in burden for the participants. Therefore, I decided to develop a workshop for around an hour in that students can participate. Next to theoretical knowledge, I also wanted to incorporate practical knowledge and experience. Details about this workshop will be explored later in the abstract ‘my change approach’.

Lastly, as mentioned also the current point of time in the semester seems to be a very valuable one for implementing a workshop about the topic of managing stress. Many students experience stress especially towards the end of a semester. A national survey in Germany for example shows that 95% of students reported to have a middle to high stress level towards the end of a semester (Herbst, Voeth, Eidhoff, Müller & Stief, 2016). Most frequently reported stressors were time pressure, performance pressure, excessive demands, and internal worries or nervousness. Also other studies show that around 80 percent of students experience daily stress that impacts their general wellbeing (e.g. American College Health Association, 2011). Therefore, the topic of managing stress is of increased urgency at the end of a semester. This increased urgency and consequently also increased awareness of the topic in students already can be very helpful in actually inducing change in students. To illustrate this point, the transtheoretical model of health behaviour change for example proposes that there are five stages through which individuals proceed when changing their behaviour: precontemplation, contemplation, preparation, action, and maintenance or termination (Morrison & Bennet, 2012). The workshop mainly assists in the stages of preparation and action, as it provides input for some concrete plans of managing stress more effectively, and also starts with the first action steps by practicing some concrete strategies. However, this presupposes that students already passed the first two stages of precontemplation and contemplation. This means that they already should be aware of the problems that their current behaviour or stress level entails and also already have the clear intention to change when entering the workshop. During the semester this might not be the case, as most students only experience severe stress levels in the end of a semester, as indicated above (e.g. Herbst, Voeth, Eidhoff, Müller & Stief, 2016). Consequently, this workshop probably only is effective in the end of a semester where students already are aware of their problems and have the intention to change, and thus reached the stage of preparation. To conclude, the increased urgency of change in the end of the semester will probably help to make the workshop much more effective.

## Theoretical background and Change goals

As stated in the introduction of this report, stress is a concept that is very individual and personal. For example, even if it seems to be the upcoming exam which is the main reason for all students to be stressed, there might be more behind this assumption. In explanation, some students might experience stress due to the pressure of getting a good grade in the exam, others might be stressed because they simply fear to fail. Even others might be stressed because they started too late with studying and thus experience time pressure. As can be seen, what seems to be the common stressor among all students turns out to be more subjective than expected.

Due to the inherent subjectivity and diversity the concept of stress covers, there also are multiple and diversified strategies about how to cope with stress effectively. However, I detected one approach that made it possible to structure and differentiate between all the different strategies of stress management that could be found in the internet. The approach I am referring to is based on the ABC model of cognitive processes developed by Albert Ellis (Ellis & Grieger, 1977). It mostly is used to explain and intervene in mental illnesses such as depression, but can also be used to explain how stress develops. Generally, the ABC model proposes that there always is an activating event (A), which triggers certain beliefs (B) that in turn trigger our responses to the event. In short, they determine the consequences (C) of the event (Ellis & Grieger, 1977). Figure 1 provides an overview of this process.

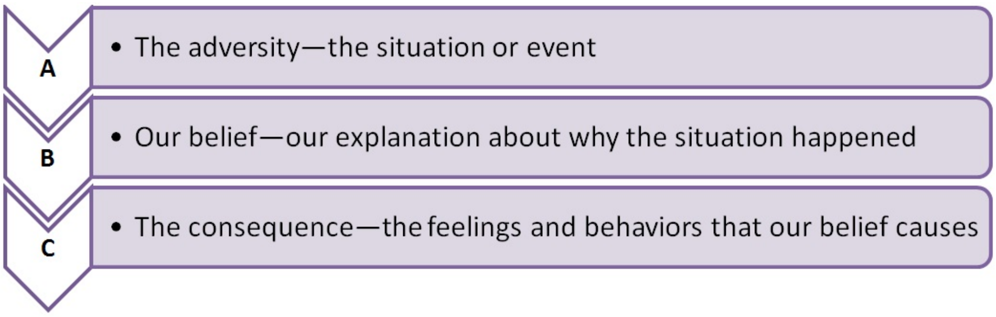


*Figure 1, Elli's ABC model*

In terms of stress, this means that the A of the model is the actual stressor we experience, for example the knowledge of an exam coming up, and the C is our response to the stressor, namely the actual stress we experience. The fact that the model proposes there is a B in between indicates that there is more to the concept of stress than just the activating stressor and the consequence, or our response to it. For example, the fact that there is an exam alone does not suffice to lead to any response in us. It is the attitude or belief we hold about the exam that causes the stressful response. For example, the fear of failing or not getting a good grade.

It is the knowledge of this model that helps to understand the different starting points one can pick up to design a fruitful workshop in regard to 'stress management'. To start with the most straightforward approach, one can try to change the 'A'. This means to eliminate or modify the potential stressor (Elkin, 2013). For example, if the stressor is bad time management which leads to unsuccessful division of tasks or planning too much at once, one can try to become better organized. However, it is of course not always possible to change the stressor. For example, one can mostly not change that an exam is coming up. Of course one could quit the study, but this mostly is not a realistic option. Therefore, another option is to change the 'B' (Elkin, 2013). This means to replace the thoughts that provoke the stress with more adaptive thoughts. When reflecting on it, we often will experience that the beliefs and thoughts we have about specific stressors are not as serious and realistic as we thought they would be. It is shown that we often develop thinking errors, which means that we hold beliefs about outcomes that turn out to be rather irrational (Ellis & Grieger, 1977). For instance, when being confronted with a lot of deadlines we might feel to not be able to succeed with finishing all assignments in time and thus we would fail the whole module. We might even feel that we would fail the whole study because of this.

This initial stress response is promoted by the fact that our body produces cortisol when being confronted with a serious stressor. In history this was very adaptive, as cortisol prepares the body to respond fast (Harvard medical school, 2018). Having in mind that the stressors our ancestors experienced could decide over whether to live or to die, for instance when being confronted with a lion, producing cortisol was a very adaptive response of our body to potential stressors. It prepared us to either 'fight' or 'flight' (Harvard medical school, 2018). In today's society however, the stressors we experience are mostly rather psychological than physical. Unfortunately, in contrast to the stressors we experience our response to them did not change (Elkin, 2013). Our body still produces cortisol, preparing us to react fast. This however also leads to the fact that we do not think rationally in stressful situations, which explains why we develop thinking errors so easily. However, when calmly and seriously reflecting on our thoughts, we will recognize the irrationality in them and are able to replace them. In short, we can be able to replace our stress-producing thoughts with some stress-reducing counterparts (Elkin, 2013). It is not an easy thing to do, but if taken seriously can have very effective outcomes. An example is to engage in a so called 'coping self- talk'. This includes to engage in an internal dialogue, while stepping back from one's own perspective and adopting a more broad and wide perspective (Elkin, 2013; Westerhof, Bohlmeijer, van den Berg, 2014). This helps to separate our feelings from our thoughts, and lets us realize that most of the possible consequences we placed to our stressors might not be realistic at all.

Both of the described approaches, changing 'A' and changing 'B', are very fruitful but also complicated. Therefore, it is only within the scope of the workshop to offer some thought-provoking impulses. Even if these might be very effective, it would of course also be relevant and desirable to provide a more practical approach towards stress management. Fortunately, there is a last way not explored so far – namely changing the 'C', the actual responses to our stressors. It is more than evidence based that there are rather simple and not time- consuming strategies that can effectively help to relax our body and quiet down our mind (Robinson, Segal, Segal & Smith, 2018). One example is 'deep breathing', which is especially relevant for people who tend to become agitated and impatient when being stressed. It includes to seek for a quiet place and practise to breathe deeply through the abdomen. Breathing in should be done through the nose, breathing out through the mouth. It effectively helps to relax the body and mind, releasing tension and anxiety (Robinson, Segal, Segal & Smith, 2018). This only is one possible technique out of many, and again it is the task of the individual to find out what works best for him- or herself. For instance, people who get rather depressed and tired when being stressed might respond better to techniques that stimulate the mind, such as self- massage or yoga (Robinson, Segal, Segal & Smith, 2018). One technique that is especially recognized and relevant for nearly all kind of individuals is mindfulness meditation (Davis & Hayes, 2011). This includes to live in the present moment, be mindful about all senses and experiences, and try to stick in to the present rather than the past or future in one's thoughts. Important is that one tries to really live in the present moment, just being with oneself and one's thoughts. There should be no music, television or else that can distract oneself. Many people do not know that mindfulness meditation is shown to be extremely effective in relaxing one's mind and body, without taking too much time (Robinson, Segal, Segal & Smith, 2018). Only ten minutes a day can make a real difference in the level of stress one experiences. Therefore, it is a valuable and practical strategy that could be incorporated in the workshop.

With all this input, it becomes visible that there are very different approaches about how to deal with stress. Elli's ABC model as explained above is a useful way to structure these different approaches and develop a general outline of the workshop. Changing 'A' and 'B' might be the most impactful way to manage stress, and it is more than relevant to introduce these strategies in the workshop. However, the time will not allow to go into depth in those approaches, so that it is up to the individual to further develop his or her thoughts and strategies to become a better agent in managing stress. In contrast, ways to change ‘C’ are more practical and can already be practised during the workshop. The exercises are rather simple and can easily incorporated in everyday life. Therefore, I think the change I can produce during the workshop will be higher for the approach of ‘C’ than ‘A’ or ‘B’. Still, the participants came voluntarily and therefore should be willing to change. Consequently, even if I think most participants will rather adopt the last mentioned approach, I still hope to inspire some of thinking about and changing their ‘A’s and ‘B’s.

Based on this discussion, the following final change goals can be stated:

1. Initially after the workshop, 75% of participants are willing to try out, in their private time, one or more of the exercises presented to change on level ‘C’

2. Initially after the workshop, 50% of participants are willing to think further and develop strategies to change on level ‘A’ or ‘B’ as presented in the workshop

3. Two weeks after the workshop, 60% of participants actually tried out some of the exercises to change on level ‘C’

4. Two weeks after the workshop, 30% of participants did a start in developing strategies to change on level ‘A’ or ‘B’

## My change approach

I derived the main idea about how to design my change project from my experiences of the honours programme so far. I realized that I especially enjoyed to design the change intervention in the course of the second module of my honours track, namely “change at the individual level”. I enjoyed the feeling to design something meaningful which could help to improve the life of others to at least some extent, without being too time consuming for them. Therefore, I decided to pick up a similar strategy for designing my individual change project.

To start with, I decided to take a similar outline of my intervention that we also took in the second ‘processes of change’ module. This strategy is based on Victor Deconick, who was a guest lecturer in one of our meetings in the second module. The outline is called the *heart-head- hand approach*, and is very appealing if the aim is to convince the audience. More specifically, it means to start the intervention with catching the emotions of the audience, to make them feel personally involved and touched. In regard to the topic of stress management, I therefore started my workshop with stating some typical stressors every student frequently experiences, connected with typical responses to those stressors – such as being tired, tensed, impatient and nervous. Next, one dives into the head of the audience, by giving them some theoretical understanding of the topic at hand and engaging them in cognitive processes. In the present case, I therefore provided them with some understanding of why stress actually develops, which processes are involved, and why we respond to it in the way we do. For instance I explained the role of cortisol production, as already stated in the abstract above. It is shown that understanding of a topic, especially if an explanation of internal processes is involved, already can be a form of intervention (Westerhof, Bohlmeijer, van den Berg, 2014). Lastly, one also wants to give the audience something they actually can work with. This probably even is the most important part in order to influence and provoke action in people. You need to give the audience something they can work with in order to create a change. Therefore, I decided to focus my intervention on the hand part of the *heart-head- hand approach.* The content of the hand part already was explained in the abstract concerning my change goals. I presented different strategies of how to change either directly once stressors (the 'A'), one's beliefs about the stressors (the 'B'), or the actual response to the stressors (the 'C').

Next to this general outline, I thought about a good way of how to start my workshop. I thought that it might first be good to get to know each other and make the audience feel comfortable. If I do the workshop in the morning, what would be a better way of reaching this aim than bringing some breakfast for everyone? This would not only be a good start in the day but also serve the principles of reciprocity and liking, as stated by Cialdini (2016). Reciprocity loosely stated refers to the fact that people are more likely to do you a favour if they already received a favour from you beforehand. The principle is not only a construct developed in modern society as a try- out to persuade people, but rather is an innate social norm of humans for decades already. Therefore, it is one of the most effective strategies that can be employed to convince others of ones work. In relation to the present workshop, I therefore can use the breakfast to establish the feeling of being obligated to listen to what I am saying and maybe even internalize my approaches. Next to this, bringing a rich breakfast for people probably will also increase the likelihood of being liked by the audience, which is another important principle of persuasion as stated by Cialdini (2016).

After the breakfast, the actual workshop started. Before beginning with the content, I invited the audience to a little warm- up. This acted as an ice- breaker, which are shown to be very relevant as a start of a meeting ("Ice breakers", n.d.). They wake the audience up, help to start the interaction with each other, and if done properly can be an introduction to the topic of the workshop. After this, I started with the heart part of the workshop. To make this part even more effective, I also related my own experiences to the aspects I mentioned. This serves another principle of Cialdini (2016), namely similarity. It is shown that we like those people who are similar to us, and thus showing that I feel the same as the audience can help to visualize my empathy and compassion. This in turn increases the persuasive value of my workshop (Cialdini, 2016). Moreover, after providing some insights I gave them time to think for themselves about what they actually experience when being stressed, and why they experience it. This thought- provoking impulse made the audience start to actually think about the content of the workshop and gave an individual and personal note to it, which is especially important in regard to the topic of change management. I repeated this method several times during the workshop, for example by letting them discuss with neighbours the content I provided. After the heart part, I proceeded shortly with the head part. As stated above, this helps the audience to understand the background of the topic and already can be a form of healing (Westerhof, Bohlmeijer, van den Berg, 2014). Next, the most important part started, namely the hand part. I spent most time on this part and also incorporated several exercises into my intervention. Learning by doing, or experiential learning, is shown to be one of the most effective strategies of learning (Moon, 2004). It is active rather than passive and more individualized and personal. Consequently, it also usually is more permanent (Moon, 2004). Actually doing the exercises in the workshop rather than just talking about them helps to understand how they should be done and maybe even provides insight into how useful they can be. Providing practical training in skills also is shown to reduce potential resistance of innovative change approaches (Kotter & Schlesinger, 2008).

Lastly, I also provided some hand outs in the end of the workshop (see appendix one). One included a list of 'ten stress reducing foods', which was a nice additional and simple way of providing some easy to implement stress management strategies (Elkin, 2013). For instance, two of these foods were even a banana and an orange, which I also brought to the workshop. Second, I also provided a hand out including an example exercise of mindfulness meditation. This handout could act as a reminder of the workshop, stimulating the participants to actually trying out some of the proposed exercises. As Prof. Dr. Siegfried Greif in one of the guest lectures in the second module stated it, superimposing cues can help to actually start an activity. If you have the card with the exercise right in front of you, it can help as a trigger to actually start this activity.

To legitimize my approach further, all activities or aspects of the workshop fit into different steps of the humans learning cycle as proposed by Kolb and Joy (2009). Kolb states that individuals go through different activities or steps when learning a new behaviour. Put most generally, he says that one first needs to have concrete experience of a behaviour. Afterwards one reflects on this experience and identifies what worked out well and what not. Then one conceptualizes what could have been done differently and why. New information and knowledge is integrated into this conceptualization. Lastly, one engages in active experimentation, meaning to try out the new conceptualized and adapted behaviour (Kolb & Joy, 2009). These steps together form the most general cycle in which humans learn. However, it does not have to be the same process for everyone, as all individuals have somewhat different strategies to learn and might for instance start with conceptualizing a behaviour instead of experiencing it (Kolb & Joy, 2009). Consequently, it is not the sequence of steps that is the same for everyone but the steps themselves. No matter in which order, all humans learn through experience, reflection and theoretical conceptualization. The workshop includes parts of all of these approaches. It gives some theoretical understanding of different strategies that can be employed, provides concrete experimentation of exercises, and invites participants at several points in time to reflect on their current stress level, strategies already used and experiences of those strategies being tried out in the workshop. Therefore, the workshop provides input for all the steps needed in the learning process of humans according to Kolb and Joy (2009).

To conclude, all these aspects together form the general approach and methods of my change project in the form of a workshop. I included several insights gained during my honours program in addition to some own approaches. Altogether, they should help to realize my proposed change goals. Below two pictures that were taken during the start of the workshop can be found.



## Results

To gain insight about the experiences of participants as well as ideas of whether my change goals were attained or not I developed two questionnaires. The first was given on paper to the participants immediately after my workshop finished. The second was sent to participants via e- mail two weeks after the workshop.

*Initial results*

As indicated above, participants were asked directly after the workshop to fill out a small questionnaire on paper. The outline of this questionnaire can be found in appendix two. This included questions that were relevant in order to measure whether the first two of my change goals were attained or not. As a short repetition, my first goal was that 75% of participants are willing to try out, in their private time, one or more of the exercises presented to change on level ‘C’. My second goals was that 50% of participants are willing to think further and develop strategies to change on level ‘A’ or ‘B’. To gain insight into these topics, I included four short questions. The first and second dealt with the strategies participants already used or use in their private life in order to manage or reduce their stress. Without this insight, it would not be possible to determine whether they are willing to try out and use certain strategies presented in the workshop because of my influence or because they already did so before. The third question asked for the probability that participants will try out one of the strategies presented in the workshop in the next month. It could be indicated on a scale from one to ten, where one means not at all and 10 means very much, how likely they are to try out one or more of the strategies. Lastly, the fourth question was designed to find out which approach participants want to take in order to manage their stress (‘A’, ‘B’, or ‘C’), if they are likely to try out one.

The results of the questionnaire were in my opinion very insightful and positive. To start with, the first two questions let me realize how often students actually engage in finding ways to manage or reduce their stress. In response to question one, they listed a lot of different strategies they use to deal with their daily stress. Examples are listening to music, meeting with friends, distracting oneself with other activities, going outside, doing Pilates, cooking, eating chocolate, smoking, or taking time for oneself. Some strategies were comparable to those proposed in the workshop, such as deep breathing exercises, changing pessimistic thoughts or trying to manage time better. However, most student relied on other approaches than those proposed in the workshop. In regard the second question, which asked if they already knew some of the strategies being suggested before, most responded that they already knew mindfulness meditation and some breathing exercises. This might be because we sometimes practise those in our psychology classes. However, they indicated that they mostly did not try them out at home.

Furthermore, the responses to the third and fourth question were very positive for me. In regard to the scale question, seven participants – which is the majority - responded with an ‘eight’. Two students responded with a ‘seven’, one with a ‘nine’, and one other even with a ‘ten’. One last students could not decide and stated to be between a ‘seven’ and an ‘eight’. This gives a mean of m = 8.04. An overview of these results can be found in figure 1 as presented below. Moreover, everyone stated to be willing to try out some exercises proposed in the approach of changing ‘C’. Next to this, three people indicated that they want to try changing their ‘A’. This especially was related to trying to change their time management skills. Eight people also were willing to change their ‘B’, especially in regard to becoming more optimistic and grateful. Taken together, this means that 100% of participants were at least willing to try out some exercises to change their ‘C’. Moreover, seven people were willing to additionally take a step forward in changing their ‘B’, two in additionally changing their ‘A’, and one person even stated to be willing to try out changing in all aspects. If this is doable is of course debatable. Nevertheless, this means that ten out of twelve, or 83% participants also are at least willing to not only change ‘C’ but also ‘A’ or ‘B’. This means that the first two of my change goals were attained, in an even more positive fashion than expected.

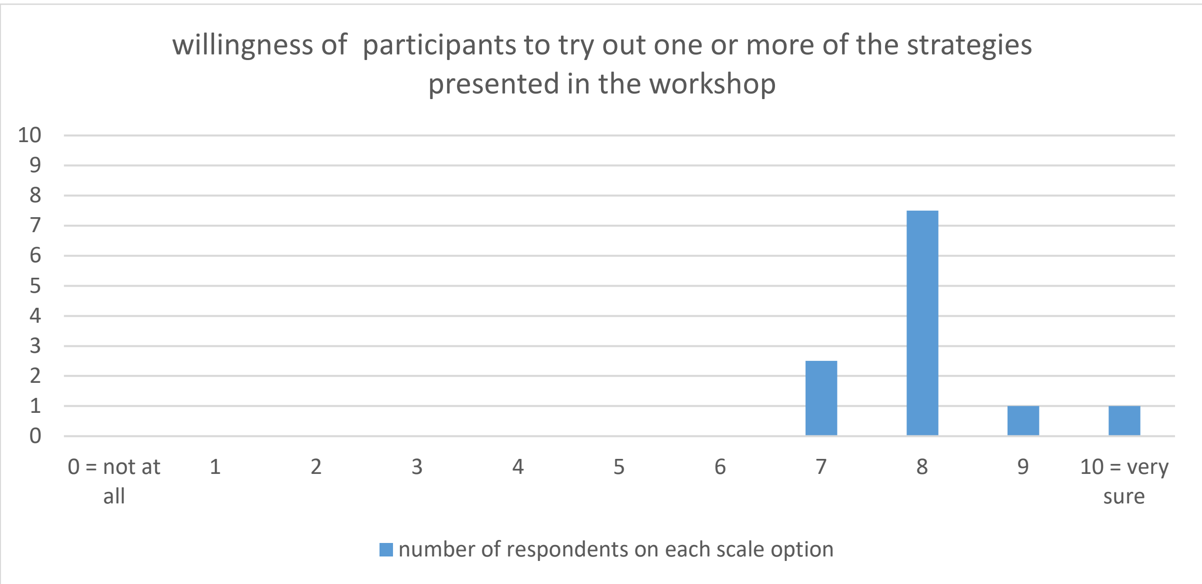


*Figure 1: willingness of participants initially after the workshop to try out presented strategies*

*Results at a later stage*

After two weeks, I sent a second short questionnaire to participants via mail. An outline can be found in appendix three. It aimed to measure whether my third and fourth change goals were attained, namely that two weeks after the workshop 60% of participants actually tried out some of the exercises to change on level ‘C’, and 30% of participants did a start in developing strategies to change on level ‘A’ or ‘B’. I created the questionnaire with the website ‘qualtrics.com’ and spread the same anonymous link of it to everyone. This ensured that participants can answer questions anonymously, which decreased the possibility of response bias resulting from the feeling of participants having to respond in a way that would please me. With the possibility of staying anonymous they might be more likely to give their true opinion instead of one that is socially desirable.

Out of twelve participants, eleven filled in the survey. Therefore, it is only possible to evaluate the results of these participants. To start with, nine out of eleven students applied at least one presented strategy in the last two weeks. The remaining two indicated that they forgot to apply some strategy as presented in the workshop but also did not feel particularly stressed in the last weeks. Seven of the participants tried out some strategy concerning change on ‘C’. Mostly they did some kind of breathing exercise in order to reduce stress right before a presentation or an exam. They indicated that they found it very helpful. One student also tried out self- massage several times and found this very effective. A last participants conducted the mindfulness exercise as given in the hand-out and now really likes this strategy to reduce stress. Furthermore, two participants said that they did something to change ‘B’. In explanation, one student did some gratitude exercises in addition to the mindfulness exercise in order to be more thankful about what she/he already has and to care less about seemingly little things. This helped or helps her/him to reduce tendencies of perfectionism causing her/him considerable stress. A second student tried to change the way she/he views situations by trying two times a week to re-evaluate her/his issues and thoughts into a more positive direction. This helps to be more optimistic and positive about situations and less nervous and stressed about negative aspects. Lastly, one student said she/he started trying to change ‘A’ by making a time schedule to stop procrastinating too much. She/he indicated that it is too early to say whether this was effective or not but she/he already feels better about it. An overview of these results can be found in figure 2 as presented below. The last question of the survey asked if participants are still willing to apply some strategies in future. All answered that they are willing to apply those strategies they tried in the last two weeks or new ones in future stressful situations. However, the question of course remains if they will really do so.

With regard to my change goals, I can state that both are nearly fulfilled. Seven out of twelve participants tried a strategy to change ‘C’, which can be described as 58%. The goal was that 60% of participants try a strategy of ‘C’. Therefore, in my view this goal cannot completely but nearly be described as fulfilled. It might additionally be that the one person that did not respond to the survey also did some exercise in regard to ‘C’. Moreover, three out of twelve participants tried something to change ‘A’ or ‘B’, which can be described as 25%. The goal was that 30% try a strategy to change ‘A’ or ‘B’. Therefore, the change goal is only nearly fulfilled. All in all, I think these results are quite contending. If participants answered honestly, most of them actually took something out of the workshop. In addition, all of those who indicated that they have tried a certain strategy also said that it was helpful. This increases the possibility that they will stick to those strategies in future.

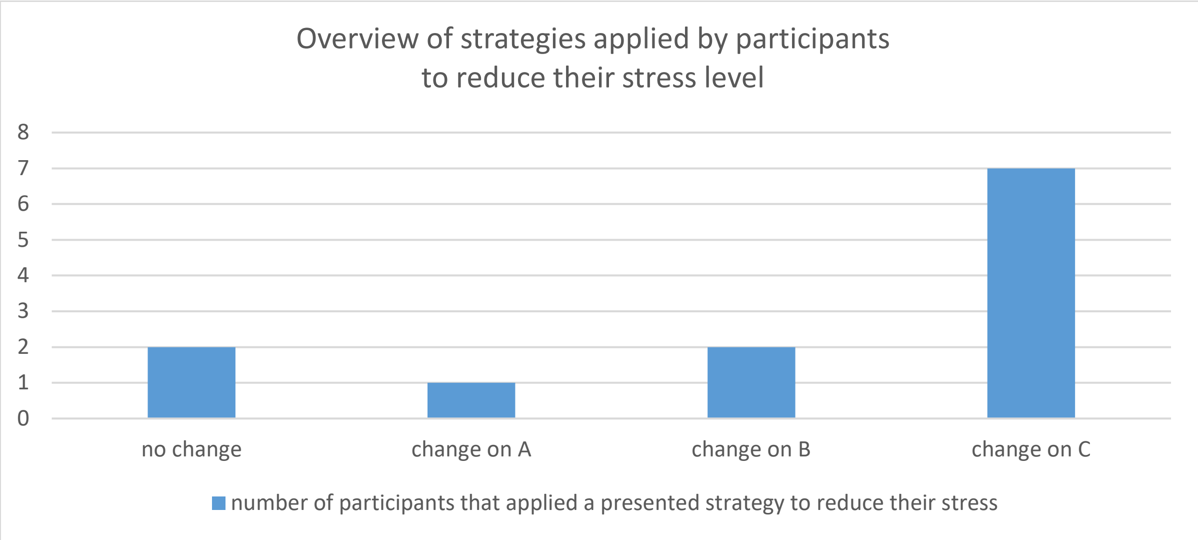


*Figure 2: results after two weeks indicated which strategies participants used to reduce their stress level*

## Advice to the target group

In general, I would first of all advice the target group to continue with those strategies they tried out after the workshop and found to be effective. For example, if one student liked mindfulness meditation a lot it is valuable to continue doing this after the summer break in the new semester. It is very positive to hear that participants already developed for them personally which strategies they like and which not. This can help to also manage future stress better. However, it is of course also helpful to stay open for other possible strategies of stress management. Maybe the strategy that worked for one situation is not applicable for another situation. If students get stuck in future I would therefore recommend them to take a broader perspective again, and think about other strategies presented in the workshop. Maybe in future it is time to switch from changing 'C' to changing 'B'. It is always good to be open for further experimentation and self- development. Only some clicks in the internet already help to find new strategies or exercises to manage stress.

For those participants who did not try a strategy in the last two weeks, I would still recommend to stay open for them in future. Even if they were not considerably stressed in the last two weeks, this probably will not stay this way forever. If they are overwhelmed with their stress in future they can think about the content of the workshop and give it a new try to find a personal suitable stress management strategy. This might be very positive and meaningful for their mental health and general wellbeing.

## My learning experience

This last honours module 'Learning by doing' included two different change processes, one being focussed on oneself while the other was more focussed on others. Consequently, I also would like to reflect on both processes. To start with, I really enjoyed the meetings with my personal UT coach. I never took such coaching sessions before and was exited what it will bring. In my case I think it actually helped me a lot. We began the trajectory with detecting some things in my life that do not work out well at the moment. I told her that I am quite stressed at the moment because I do not have the feeling of getting forward with my tasks. After initially thinking that this is because I procrastinate my tasks too much, we explored that the reason rather is that my time management is quite bad. I already tried some strategies to improve it before, however mostly only experienced even more stress in response and thus gave up soon. Together we developed an individual approach to improve my time management in a way that is personal relevant to me. I have to say that this really worked out and I am even less stressed since. This was a very valuable experience for me and even inspired me to develop a change project in regard to stress management. I wanted to enable others to also have a similar feeling of success I experienced.

This last aspect forms a suitable bridge to the second change process I experienced, being focussed on others. In the beginning of the module, I was very insecure about what project I should do and experienced a lack of ideas. However, the question of my supervisor about which module of the honours program I enjoyed most gave me the direction about how to go. It was easy for me to answer this question, as I definitely liked the second module most. Designing an own change intervention with the possibility of improving other individuals lives was very appealing to me. Therefore, I decided to do something similar for the present module. As stated above, the idea for the actual content of the workshop mostly came up in the course of my coaching sessions. When looking back, I think I did a good choice in regard to the change project I took. I enjoyed to find out about all the different possible strategies and approaches to stress management and to develop an actual workshop out of it. I also enjoyed to actually having the feeling of creating an impact in others life. I realized that this really is what I enjoy most, to work with and create a change in the life of individuals. I liked this more than talking about organizational change or global change in general, for example.

I can even link these insights to the results of the ‘insights discovery profile’ we once got in the course of the honours program. My personal profile stated that I can be categorized as the ‘helping supporter’. This for instance means that I seem to place high value on relationships with others, in private as well as in professional life. It also means that I have a high level of empathy, get generally along well with others, am team minded, non- critical and supportive. I like most to work with others and help them in their life. I might be a good consultant or mediator. I think these characteristics fit quite well to the fact that I preferred to do my change project with individuals in a more private setting. It also fits to the aspect that I liked most to be able to improve the life or others to some extent. Altogether, I therefore think I am a change leader who prefers to change something on a practical, personal and individual level rather than on an abstract and organizational level. I prefer to work together with individuals and their personal and psychological difficulties. I enjoyed to do the workshop with other students and get into contact with them. Getting such positive feedback was extremely meaningful to me.

However, my learning process of course not always was straightforward and I also had to struggle with difficulties at times. Especially in the beginning I was very insecure about what I should do and what I even could do. Also during the course of planning my workshop I was very insecure whether my approach is a good one and students will even like it. All in all, I experienced more negative emotions than necessary. I think I should be more confident in my abilities and maybe have some more trust in myself. In the end my workshop turned out quite good and my worries often were without cause. Being more confident might also impact my appearance in general, as I think I looked somewhat unprofessional and insecure at some points of my presentation. Being more relaxed and confident might even increase the motivation and willingness of participants to actively take part. It also lets me seem more convincing. All in all, I therefore would try next time to be more confident in myself and develop an approach about what to do a bit earlier. This might decrease my negative emotions and increase the impact of my workshop.

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## Appendices

**Appendix 1:** *hand-outs of the workshop*

Hand-out one:

### Ten stress-relieving foods

Here's a more specific list of ten foods that are not only good for you but also can help lower your stress level:

- **Nuts:** Especially almonds, which have lots of magnesium, B2 (riboflavin), zinc, and vitamin E. Almonds can help regulate cortisol levels. But don't overdo it. Nuts can be caloric, but they're great as a snack.
- **Broccoli:** Your mother was right. Eat your broccoli. It contains lots of B vitamins and folic acid, and it's great as a side dish with fish or chicken. Spinach is good, too — lots of magnesium.
- **Fish:** Most varieties of fish contain the important B vitamins, B6 and B12. These can play a role in synthesizing serotonin, which can affect your moods. Tuna and salmon are loaded with omega-3 fatty acids that can play a role in regulating adrenaline.
- **Milk:** Again your mother was right. Milk contains vitamins B2 and B12, along with antioxidants that are often associated with reducing stress. It also contains tryptophan, which can increase the production of serotonin. Milk also has calcium, magnesium, and potassium, which are important stress-regulating elements. You don't have to drink your milk straight; pour it on some cereal instead. Go for the skim variety.
- **Bananas:** They're full of potassium. They're also a great snack when you need some fuel in your system, and they're a great addition to fortified cereal.
- **Blueberries:** These are filled with antioxidants and vitamin C, which help fight stress. Grab a handful when you need a healthy treat or sprinkle some on your morning (or evening) cereal.
- **Oranges:** Stress can reduce your levels of vitamin C, but oranges can replenish that vitamin, which boosts your immune system. Oranges also make a great snack.
- **Sweet potatoes:** Actually, they're not really potatoes — they're roots. They're also a great source of vitamin B6, vitamin A, and antioxidants such as beta-carotene.
- **Brown rice:** This is much better for you than the white variety. Brown rice has much more manganese and phosphorus than does white rice. It contains more iron and greater amounts of vitamins B3, B1, and B6, all known to have stress-reducing properties. Brown rice is richer in fiber, selenium, and antioxidants. It also has a great "nutty" flavor.
- **Avocados:** These are loaded with potassium and vitamin A. The taste and texture can be highly satisfying.

Hand-out two:

### *Mindfulness exercise*

1. Sit on a straight-backed chair or cross-legged on the floor.
2. Focus on an aspect of your breathing, such as the sensation of air flowing into your nostrils and out of your mouth, or your belly rising and falling.
3. Once you've narrowed your concentration in this way, begin to widen your focus. Become aware of sounds, sensations, and thoughts.
4. Embrace and consider each thought or sensation without judging it good or bad. If your mind starts to race, return your focus to your breathing. Then expand your awareness again.
5. Do this for 5 to 10 minutes!

**Appendix 2:** *initial questionnaire*

**Short questionnaire ☺**

In the past two weeks, which strategies did you use to reduce your stress?

Did you know and/ or tried out some of the strategies that were presented before?

On a scale from 1 to 10 (where 1 means not at all and 10 means very much), how likely are you to try out one of the strategies presented in this workshop to reduce stress in the next two month?

Would you try to change your C (= do some of the exercises), or do you also plan to think further about changing A and B? Or both?

**Appendix 3:** *questionnaire after two weeks*

THANK YOU for filling this in!

In the past weeks after the workshop, did you actually try out one of the strategies presented to manage your stress more effectively?
--> If yes, which strategy did you try and to which 'category' does it belong (changing A, B, or C)?
--> If yes, did you just tried it out once or more often? - you can indicate how frequently you did it

If you tried something out, can you tell me shortly how you experienced it and if you think it is effective for you? And if you want to continue with it?

Do you plan to apply some strategies in future?

→

# EC 2018: RESTART AND UPDATE

TJO-KIN MAN | S1816772 |BACHELOR HONOURS PROGRAMME | TRACK PROCESSES OF CHANGE | MOD06 LEARNING-BY-DOING| VERSION JULY 2018 (FINAL) | UNIVERSITY OF TWENTE

## ABSTRACT

The subject of this intervention is the Education Committee of Inter-*Actief*, from which I was de chairman in the academic year 2017/2018. In September 2017, the committee suffered from several issues by bad legacy related to motivation, cohesion, efficiency, visibility and language. Until April 2018, eight structural changes were implemented in an attempt to deal with these issues. From these changes, two new issues arose: (1) an increased workload and a wrong prioritisation of action points, and (2) a large reduction in the involvement of *advisory members*. This paper first shows the change process of the committee in the period of September 2017 until April 2018. After that, it gives a change proposal consisting of both structural and behavioural changes dealing with the two new issues.

## 1. INTRODUCTION

The subject of this intervention is the Education Committee of the study association I.C.T.S.V. Inter-*Actief*. Inter-*Actief* is the largest ICT study association in the Netherlands, representing students from the bachelor and master programmes Computer Science and Business & IT at the University of Twente. The Education Committee aims to improve the quality of education and to support students with their education-related issues. The core activities include: discussing educational affairs and trying to influence it in favour of students; handling complaints from students; providing educational support to students and teachers (e.g. project evenings, workshops etc), and, organising education-related activities for students and teachers (e.g. lunch lectures, guest drinks etc.)

The education committee suffered from several issues by bad legacy. In an attempt to deal with these issues, two other issues arose. This paper starts with a description of the situation in September 2017 by describing the initial issues observed. After that, it describes the changes implemented and the intermediate results of those changes as it was in April 2018. Then, we zoom into the (wicked) problems that have arisen due to those changes and the associated change goals will be defined. Finally, using literature and with the support of the UT coach, a change proposal will be created which describes an approach on how to achieve the change goals. Where possible and appropriate, the suggestions in the proposal will be implemented directly as an act of continues improvement. But since the time of this intervention is limited, it is not reasonable to make conclusive statements about the effectiveness of the implemented changes. In any case, the proposal will be shared with the committee, including the next year's chair(wo)man.

The execution of intervention is approved by the Education Committee of I.C.T.S.V. Inter-*Actief* at the 3rd of May 2018. The committee waives all claims made in this paper and confidentiality will be appreciated.

## 2. START SITUATION - SEPTEMBER 2017

In this academic year (2017/2018), my role within the Education Committee is to be the chairman. The core tasks of the chairman include making the agendas, chairing the meetings, and keeping the overview of all the educational affairs and activities. Due to negligence and moderate leadership by past chairs (probably caused by time pressure and major educational changes), the committee suffered from several issues at the start of this academic year:

**A. Lack of (intrinsic) motivation and engagement**

Both the attendance in meetings and the willingness to help organising activities was extremely low for the majority of the members. This resulted in meetings in which barely two-thirds of the members showed up, in action points which were procrastinated for months, and, in the same small subset of members (approximately 4 out of 9) organising and supporting almost all activities.

**B. Lack of cohesion**

The committee exists of: (1) one student per cohort per study (viz. BIT1, TCS1, BIT2, TCS2 etc.), (2) students involved in different layers of the educational management system (e.g. FC, PC, QA), and, (3) students who are ex-Commissioner of Educational Affairs. Combined with the fact that the committee has a wide range of activities and responsibilities, it lacked cohesion among its members. Although all members do have the shared vision to improve the quality of education and to support students, a dichotomy has arisen between (busy) members who prefer only to advise about legal and educational affairs and members who also want to organise activities.

**C. Inferior efficiency**

In comparison to other education-related committees from the faculty of EEMCS and to other committees within Inter-*Actief*, the efficiency was considered insufficient. On the one hand, this was the result of a habit in which every detail is discussed (unnecessary) very extensively. On the other hand, it was the result of members not investing enough time in preparing the meetings.

**D. Inferior visibility**

On certain topics, the visibility of the committee was limited. Most students and some teachers do know that the committee organises some activities and that it facilitates the possibility to file educational complaints. However, many students and teachers are unknown about the other merits of the education committee such as its influence on rules and regulations, the possibility for students to nominate a teacher for an education bouquet, and the possibility for teachers to cooperate with the committee. Since the committee either acts on behalf of students or performs for students, the committee can only be truly effective if it is recognised and known by all the students and the related teachers.

**E. Dutch-speaking committee**

Although both the bachelor and master studies BIT and TCS are populated by many foreign students, the committee members representing these students are all Dutch-speaking. Foreign students have to be embraced by the committee to close the gap between the representation of Dutch and non-Dutch students. Having foreign students in the committee is the only truly effective way to get know the (issues) of foreign students.

## 3. INTERMEDIATE RESULTS - APRIL 2018

Between September 2017 and April 2018, major changes have occurred. The implemented changes (and the affecting issues) are:

i. **Tracking absenteeism (A)**
Instead of only recording the attendance, a table is created in which the attendees, the absentees without notification and the absentees with notification are recorded. This visibility might increase the motivation of the members to join meetings and, if they cannot, to notify their absence (formerly, too often absence was not reported in advance). Since this change resulted in having more overview over the absentees as well, it also facilitates discussions about absenteeism.

ii. **Reorganisation (A, B)**
The lack of cohesion between the members is an issue that is immemorial and typical of the education committee. Instead of choosing the umpteenth attempt to bring these groups together, it is chosen to embrace the fact that there is a dichotomy (B) and use it to increase the intrinsic motivation for members to attend meetings and actively participate in the organisation of activities (A). A hard separation is made between the so-called *core members* and *advisory members*. The *core members* (6/10) are strongly expected to attend all meetings and to support in organising activities. The *advisory members* (4/10) are expected to join the meetings and to contribute the committee, especially, in their field of expertise. On request of the last group, their attendance is on a voluntary basis due to workload issues.
The great advantage is that the *core members* are feeling more responsible towards the committee since the group "actually doing things" is smaller; every *core member* not joining a meeting/activity results in losing one-sixth of the potential instead of one-tenth. This approach is supported by an empirical research of Chidambaram & Tung (2005) which claims that the productivity per person decreases due to the effect of social loafing. The practice shows that the absence of the *core members* is reduced to almost zero.

iii. **Organisational expectation management (A, C)**
Extra attention was paid to the organisational expectation management. First, temporal courtesy was encouraged among the members. This means that meetings should start and end on time, which requires some effort and discipline from all the members. It was, therefore, inevitable that some meetings started before all members were present. Second, it was made sure that the formal agenda was available at least a week prior to the meeting, enabling the attendees to prepare for the designated topics. These measures cause less disruptive and more favourable meetings (A) in which there is more focus on the meeting tasks (C) (Cohen et al., 2011). Also, effective time management demonstrates care and respect, increasing the psychological meaningfulness and psychological availability (A) (Allen & Rogelberg, 2013). Furthermore, it enhances the leader-member exchange (A) (Baran et al., 2012).
In execution, it happened that meetings started with a delay due to organisational issues or because key attendees were late. Furthermore, some meetings were ended late because of a too long agenda. In the latter case, members could leave the meeting prematurely.

**iv. Structured activities (A, C)**

To increase the efficiency in organising activities (C), it is decided to create a rigid framework with the flexibility for additions (based on an existing framework). For each activity, the following table is created in which members are assigned to a specific and bounded part of the organisation:

| W: website | E: hERO's | E: SU & IA-planner | D: dinner | F: FlitCie | P: promo | S: SocCie / booking office | Wine |
|---|---|---|---|---|---|---|---|
| Member 1 | V | Mailed (M2) | Member 2 | Member 1 | … | RA1501 | --- |
| - <any additions>: member 6<br>- <any additions>: V | | | | | | | |

*Figure 0: framework for organising activities*

Such a framework prevents from forgetting anything when organising an activity and creates an overview each member can consult or update anytime. Another effect is that the motivation (A) of the members increases due to the visibility of their effort and due to the responsibility they have for a specific part of the organisation. Since the introduction of this framework, it is no longer necessary to ask the members about the status of their action points which creates a mutual trust and a sense of responsibility.

**v. Every member contributes, none overwhelm (A, C)**

One of the first habits changed is the one that there were several members who are used to discuss every detail very extensively and, therefore, in fact overwhelming the committee with unnecessary information causing an inferior efficiency. The current policy is that the chairman leads every discussion, that its truncation of a discussion is leading, and that the chairman should speak at most 30% of the time. In fact, the role of the chairman is to be the facilitator controlling the information flow, assisting in the decision-making process and allaying meeting derailment (Cohen et al., 2011). This resulted in meetings that were almost all ended in-time (C), although the number of tasks/topics of and interactions with the committee is increased in the course of the academic year.

A side-effect of this policy is that it uncovers the opportunity to let every member contribute to a discussion which causes an experience of relevance and psychological meaningfulness, increasing the engagement (A) (Allen & Rogelberg, 2013) and the leader-member exchange (A) (Baran et al., 2012). To strengthen this effect and to introduce psychological safety, the agenda point "the current state of education", is introduced in which every member is expected to actively report about the current situation in its cohort/study.

**vi. Secretary appointed (C)**

A new member is asked to be secretary and she agreed to it. This increases the efficiency of the meetings since the minutes are taken faster, with more accuracy and more uniformity; practice makes perfect. This affects the time lost when preparing a meeting and while meeting.

In the first few meetings, it became apparent that having a secretary who is inexperienced with minute-taking and relatively unfamiliar with educational matters causes some teething troubles. After a while, the troubles gradually dropped resulting in a well-functioning practice.

### vii. Increased interaction with students and teachers (D)

The committee organised in every quartile at least one lunch lecture and at least one other activity where both students and teachers are invited and/or involved. At the end of (almost) all those activities, students are informed about the merits and the tasks of the committee and are told how to approach the committee if they have questions, difficulties or educational remarks. In addition, the education committee collaborated with two modules to organise extra events and workshops to support students having difficulties with their study.

To further improve the relationship with the teachers, extra emphasis has been placed on the “educational bouquet” and the “decentralised educational awards” where students can show appreciation for their teachers by nominating them for a bouquet or award, respectively.

All these actions to showcase the education committee and to connect the committee with the outside world seems to be effective since the number of interactions increased.

### viii. Internationalisation (E)

In October, when searching for the two new first-year members from cohort 2017/2018, extra attention is paid to recruit foreign students. The result is that two foreign students joined the committee. As a consequence, the committee had to embrace English as its official language. None of the members seems to have experienced significant difficulties caused by a language barrier. The new members gave the committee new insights the experience of (foreign) students.

## 4. PROBLEMS AND CHANGE GOALS

Although it seems that all issues are resolved to a certain extent, new problems have arisen from those changes. This section describes the issues arose and defines the associated change goals:

**F. Increased workload and a wrong prioritisation of action points**

Many *core members* currently experience an increase in workload due to (1) the increased interaction with students and teachers, (2) the policy that every member should be able to contribute to all topics, consequently the need to prepare for every meeting, and, (3) the increase in visibility and interactions, causing the committee having more (external and requested) agenda points than it effectively can handle. A negative effect of this increased workload is that some members lost the overview on their action points and start prioritising them wrongly. This results in a situation where easy action points are executed relatively fast while an increase in difficulty also increased the chance of an action point being executed partly or even being totally ignored/postponed.

Since the committee values the three causations increasing the workload, limiting one of them is not the preferred option. The goal is to reduce the workload sustainably and to find a way to keep the overview over all the action points.

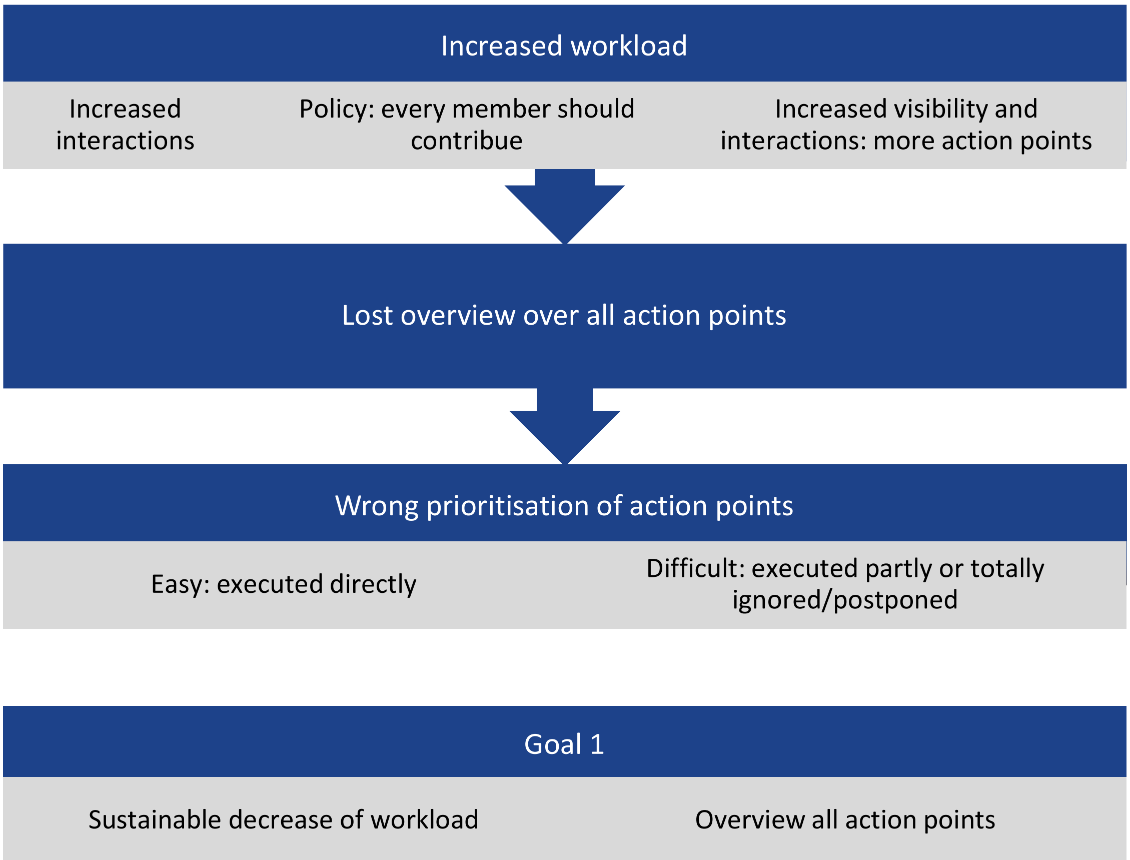


*Figure 1: linear relational representation of issue E*

**G. Large reduction in the involvement of *advisory members***

The reorganisation of the committee into *core members* and *advisory members* has the result that almost all *core members* are participating in almost all meetings and activities. The counter side is that it created a large reduction in the involvement of the *advisory members* both during the meetings and at activities. In the former situation, approximately half of the *advisory members* joins a meeting and one-third joins an activity. Currently, it is the rule rather than the exception that there are no advisory members joining meetings. For activities, the participation ratio is still about one-third.

When discussing this issue with the *advisory members,* busyness and a high workload are constantly called as the reasons for not being able to join meetings. (Note that their role within the committee is in fact not changed; the outline is only sharpened) Since they requested during the reorganisation to exempt them from the "obligation" to be present due to the same reasons, it is not preferable to rollback this policy. It is important to discover the real underlying reasons why the *advisory members* almost stopped joining the meetings. A favourable situation has to be created in which they feel engaged to the committee and in which they are motivated to make valuable contributions. The scarcity of these members (highly involved and experienced within different layers of education) requires a sensitive and non-offensive approach.

A personal issue arises when handling this problem. Past experience shows that it is difficult for me to approach people about their dysfunction in a sensitive and non-offensive way since I am rather a direct person. Furthermore, I have the nature to block myself when discussing the professional conduct or performance if it is about a topic which can be interpreted as a personal attack. Especially if it is with someone with more authority/experience/ knowledge, it feels like personal attacking someone rather than tackling someone, fearing a deteriorated relationship. This prevented me from taking actions the moment I saw it went wrong. The personal development goal linked to the UT coach is, therefore, to learn dealing with such situations.

The issues discussed in this section results in a wicked problem as depicted in figure 2. The goal is to get the *advisory members* involved in the meetings again since they are a valuable source of knowledge and experience (Goal 2).

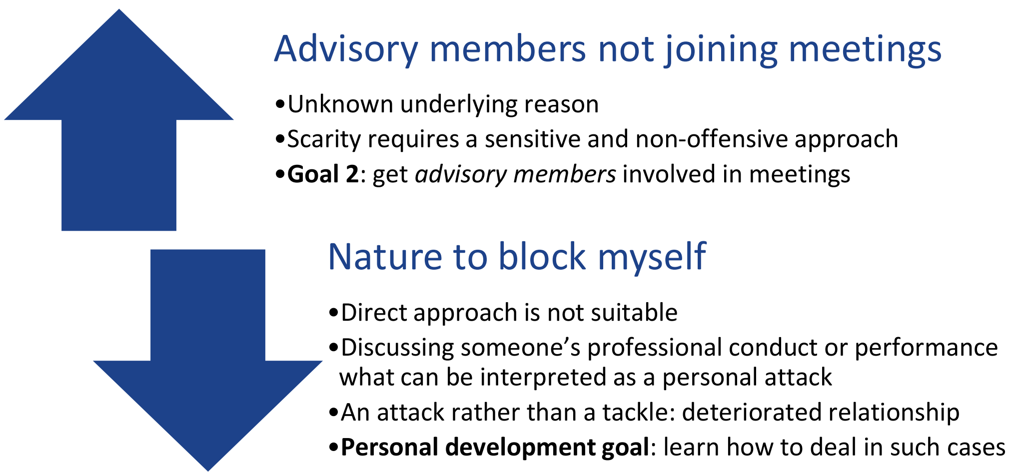


*Figure 2: graphical representation of the wicked problem (issue F)*

## 5. CHANGE PROPOSAL

This part describes the change activities addressing issues F and G. When drafting these structural and behavioural changes, aimed to be implemented in the near future, two factors are considered rather important. First, the outcomes of the actions should not negatively interfere with the actions taken earlier since that will likely revive the (more problematic) original issues. Second, the actions should not cause major organisational disruptions nor the outcomes should have a temporary nature. After a year of many iterative and some incremental changes, it is desirable to aim for a stable and sustainable organisation. The proposed changes (and the affecting issues) are:

**ix. Action points list (A, C, F) – implemented**

Instead of the list with action points being part of the agenda (between the agenda points), the list with action points should be included as an appendix of the agenda. This creates more options in adding structural elements which contribute to maximising the overview.

When implementing this change, the form of the action points appendix has undergone several minor changes based on the feedback received and the experience in practice:

- In the first approach, a minimum viable version of the action points list has been created to be built upon. It includes, besides the action point itself and the responsible, a unique and fixed two-part number. The first part is the number of the meeting from which the action point originates and the second part indicates the sequence within a meeting.
  Showing from which meeting an action point originates, should increase the overview over all the action points (F). Also, since the numbering is unique and fixed, this can be used to refer to an action point which potentially increases the meeting efficiency (C).

| # | Members | Action point |
|---|---|---|
| 1.1 | M1 | Action point 1.1 |
| 2.1 | M1, M2 | Action point 2.1 |
| 2.2 | M2 | Action point 2.2 |

*Figure 3: first approach of the action points appendix with unique and fixed numbering*

- In the second approach, on request of the committee, a status column is added in which members are expected to update the status before the meeting, increasing the overview over the action points (F). As with structuring the organisation of activities (iii), it potentially increases the motivation of the members (A) due to the visibility of their effort and due to the responsibility they have for a specific action point. Another potential benefit is that this change increases the efficiency of a meeting (F) since more information is communicated beforehand.

| # | Members | Action point | Status |
|---|---|---|---|
| 1.1 | M1 | Action point 1.1 | 0 |
| 2.1 | M1, M2 | Action point 2.1 | 1 |
| 2.2 | M2 | Action point 2.2 | 2 |

0: not started | 1: started | 2: started, waiting for external party | 3: started, paused | 4: will be finished next meeting | V : finished

*Figure 4: second approach of the action points appendix with status*

- When using the action points list as shown in figure 4, the statuses seem to be a bit vague and, therefore, used differently among the members. First, “started, waiting for external party” is changed to “waiting” since most members used it in a way it covers the same information; waiting is perceived to be always related to external parties. Second, “started, paused” is changed to “paused” since a paused action point is, by definition, started.

| # | Members | Action point | Status |
|---|---|---|---|
| 1.1 | M1 | Action point 1.1 | 0 |
| 2.1 | M1, M2 | Action point 2.1 | 1 |
| 2.2 | M2 | Action point 2.2 | 2 |

0: not started | 1: started | 2: waiting | 3: paused | 4: will be finished next meeting | V : finished

*Figure 5: third approach of the action points appendix with updated statuses*

- Both the numbering and the statuses do not give a clear indication of the importance of an action point; the execution of action points is still in the order of difficulty. Therefore, the column “priority” is added which indicates an action point’s importance (F). Since the importance is not objectively and quickly accessible, no degree of importance is implemented.

| # | Members | Action point | Priority | Status |
|---|---|---|---|---|
| 1.1 | M1 | Action point 1.1 | | 3 |
| 2.1 | M1, M2 | Action point 2.1 | X | 4 |
| 2.2 | M2 | Action point 2.2 | | V |

0: not started | 1: started | 2: waiting | 3: paused | 4: will be finished next meeting | V : finished

*Figure 6: fourth approach of the action points appendix with priority column*

- The last approach is about fine-tuning the action points list. It is experienced by some members that the status numbers indicate some sequence for executing the action points although it is not the case. Therefore, it is chosen to further simplify the statuses.
  The numbers indicate the regular sequence (0: not started, 1: started, 2: will be finished next meeting). The capital letter “V” indicates an action point is finished. Since finished action points should actually be removed from the list, “to be discussed” is added as a clarification. Furthermore, since pausing an action point is not part of the regular sequence and should also be prevented, it is chosen to indicate paused action points by a capital letter “P” and to put that possibility at the end of the legend.

| # | Members | Action point | Priority | Status |
|---|---|---|---|---|
| 1.1 | M1 | Action point 1.1 | | 1 |
| 2.1 | M1, M2 | Action point 2.1 | X | 2 |
| 2.2 | M2 | Action point 2.2 | | V |

0: not started | 1: started | 2: will be finished next meeting | V : finished, to be discussed | P: paused

*Figure 7: last approach of the action points appendix with updated statuses*

Meaningful statements about the (long-term) effectiveness of this change cannot be made. However, based on observations, the last approach seems to be the most promising one (when considering the opinions of the members and the real-life execution of action points).

**x. Weaken “1 student per study-cohort”-rule (F) – implemented**

Due to the increased number of tasks and responsibility the committee has, more *core members* should be attracted for the execution of the day-to-day activities. The means that the rule of having one student per study per cohort should be weakened. A possible negative consequence is that this structural change might decrease the engagement of the group due to the increased group size (Chidambaram & Tung, 2005). Also, larger meetings seem to have lower quality (Cohen et al., 2011). However, allowing more members seems to be the only sustainable solution if the committee wants to maintain a certain quality level while exploring its growth potential.

In the implementation phase, several limitations and conditions have been drafted:

- The committee should exist of at least 1 student per study per cohort.
- Extra *core members* are allowed to join the committee, but this should be kept to a bare minimum necessary to ensure the continuity in the fulfilment the day-to-day activities.
- The extra *core members* should have some former relevant experience and expertise in education and should be able to effectively contribute to the performance of the committee.

This resulted in May 2018 in the acceptance of two new highly-motivated and experienced *core members* to replace one leaving *core member*. Since the end of this academic year approaches, it is unknown what the effect of this policy change will be with regards to the execution of action points (almost no new action points) and the involvement in organising activities (there were no). The experience in the next academic year should reveal the effects. The attendance in meetings seems not to be negatively influenced, looking at the number of absent members in the last few meetings.

**xi. Draft a strategic principle (F, G)**

A way to increase the involvement of and to decrease the workload for all the members is to implement a so-called strategic principle. A strategic principle is a memorable and actionable phrase that distils an organisations strategy into its unique essence (Gadiesh & Gilbert, 2001). If well-crafted and effectively communicated, this enables the committee to maintain the strategic focus while fostering flexibility among its members. This way, all members and especially the (highly knowledgeable and influential) *advisory members* can anticipate and operate on its own initiative without the need to discuss/report anything beforehand. On the one hand, this reduces the amount of bureaucracy resulting in a reduced workload (F). On the other hand, this might increase the involvement (G) since members are no longer bound to meetings to contribute to the committee. Occasionally joining a meeting to report the progress is valuable if the alternative is to be inactive. The risk is that many members will stop joining meetings and that contradicting or undesirable decisions are being made. Therefore, it is important to set clear boundaries in which a member can operate and experiment freely and to emphasise that meetings are necessary for fruitful interactions, synchronisation and effective discussions.

This change is too disruptive to be implemented at this moment. Also, it is important for the endurance of the principle that the committee is not evolving rapidly as it is right now. Future chairs have to assess whether and when drafting such a principle is achievable and effective. The HBR article of Gadiesh & Gilbert (2001) can be used as a guideline.

**xii. Limiting tasks and responsibilities (F)**

In order to reduce the workload, the possibility to limit the tasks and responsibilities should not be excluded. As the committee is evolving rapidly right now, future chairs have to balance the opportunities/wishes with the capacity and abilities of the committee. Once the committee is more stabilised, future chairs should draft a sustainable, achievable and future-oriented set of tasks and responsibilities. This includes updating the mission, vision and perhaps the strategic principle (ix).

**xiii. Further increase the team effectiveness (F)**

A way to decrease the workload (F) is to increase the team effectiveness. As it is probably a shared experience in all organisations, also this committee suffers from redoing work due to an insufficient outcome of a performance. Partly, this is caused by the lack of overview over the action points and due to the increased workload; in fact, there exist a vicious circle. Campion et al (1996) described several relevant characteristics which might contribute to the team effectiveness. Ranked from potentially having the most to the least impact, these are:

- Members should have the confidence in the abilities of the team (potency).
- There should be an atmosphere of social support, communication, cooperation and a fairly shared workload.
- The job design should be motivational: by expecting members to perform a variety of tasks, by giving members some degree of autonomy, and by indicating the importance of their performance.
- Encourage interdependency by e.g. setting interdependent goals, giving interdependent feedback/rewards, and drafting interdependent tasks.
- Create a supportive context in which members are having training (technical and team skills) and gets managerial support (resources, information, encouragement).

These characteristics cannot be implemented right away but need time to evolve in the culture of the committee. It is recommended for the future chairs to take these characteristics into account in the day-to-day interactions with the committee.

**xiv. Ensure predictability of meeting moments (A, G)**

Planning meetings consistently (same day, frequency, moment) increases the predictability, enabling members to effectively meets its commitments. Furthermore, it allows members to schedule safely other activities in a way they find effective. This contributes to the experience of psychological safety, increasing the engagement (A) (Allen & Rogelberg, 2013). This is especially the case with *advisory members* since they are experiencing more busyness and commitments (F). This change is not implemented since these insights are gained after all meetings of this academic year have already taken place.

### xv. Creating a favourable environment for the *advisory members* (G) – partly implemented

***Goal and target group***

In order to get the *advisory members* involved again, it is necessary to create a favourable situation in which they feel engaged to the committee and in which they are motivated to make valuable contributions to it. Since the composition of the population *advisory members* is subject to change, this part of the change proposal is mainly aimed at the future population *advisory members.* Most members of the current population will, therefore, functions as proxy members.

***Approach***

The first step is to search for the underlying reasons why all *advisory members* are almost stopped joining the meetings. Due to busyness, geographical distance etc. it was not possible to plan a joint meeting/intervention (e.g. focus group) to address this topic. Since the group of advisory members is relatively small, a semi individual approach seems to be the most achievable and yet effective method to discuss this issue and to extract the information needed. Even if the composition of the population advisory members is subject to change, all interactions should be as sensitive and non-offensive as possible.

As the basis for all the individual approaches, a semistructured, exploratory interview seems to fit the best. The major advantage of such an approach is that it allows the combination of having a sensitive/non-offensive framework with the possibility of the interviewee going in-depth on certain topics. Drawbacks as unbounded discussions, high effort requirements, challenging analyses and problems of recall (Lazar, Feng & Hochheiser, 2017) seems not to be major issues as the research population is small and the context unequivocal.

After the interviews, the data will be analysed by both content and discourse analysis. Based on the analysis, a number of changes will be proposed. Not taken into account are research aspects such as validity, reliability and triangulation since the aim of this intervention to get as much feedback and ideas as possible, not to have a strictly scientific correct research.

***Preparation***

To invite the *advisory members* for an interview, they were all contacted through WhatsApp. It is chosen to use WhatsApp to initiate the conversation since this is the most common communication tool within this committee. Based on the conversations before, all members at least should have the incentive and willingness to cooperate since they all want to improve the education and this committee. All conversations started with the following sequence of messages (in Dutch):

- Hoi <name>
- Heb je toevallig even 2 minuten tijd?
- Zoals je wellicht in de notulen van de OC hebt gelezen, ben ik voor mijn Honours project bezig met een klein onderzoekje naar het verbeteren van de OC. Zou je mij hierin willen helpen?
- Het gaat onder andere over hoe we ervoor kunnen zorgen dat de adviesleden meer betrokken worden en blijven in de OC. Gezien jij een van de weinige adviesleden bent, zou ik graag ook jouw feedback willen hebben. Zou je hieraan willen bijdragen?
- Wanneer denk je de komende week tijd te hebben voor een interview van 15-20 minuten?

These sentences are built upon the Principles of Persuasion by Cialdini (n.d.). First, Consistency is used: by increasingly asking a bit more commitment (answering yes to several questions), it becomes more easy to agree with the final request. Second, the Principle of Liking is used by mentioning that we are *together* working on a mutual goal (the involvement of the *advisory members*) and by mentioning that this is for a university project triggering similarity. Third, Consensus is used: by accentuating that I *also* (in Dutch: *ook*) want his/her feedback, it implies others promised to cooperate as well. Finally, the principle of Scarcity is used but in an inverse way; in this case, the member is the scarce resource. This indicates that his/her opinion is valuable and hard to get; in fact, magnifying the Principle of Liking.

The last question is not formulated as a closed question asking *whether* someone wants to help, but *when* they have time to help. By framing the question this way, the decision to help is actually already made, making someone forget the possibility to refuse help. This also forces someone to make an appoint right now, limiting the time someone can overthink the request. To prevent limiting factors as busyness playing a too large role (and my attempt to try not being a too contemptible person), enough options are given and the requested time-investment is kept low.

The remainder of the conversation has a twofold goal. First, it is aimed to plan an interview as soon as possible and preferably in real-life. If a member prefers another medium, video conferencing, teleconferencing and instant messaging will be proposed as well (although these options lack more opportunities to perceive non-verbal cues) – in the end, the preference of a member is leading. Second, a member should not feel being attacked or bothered but unconsciously be encouraged to think about the situation.

***Interview guide***

This interview guide is meant as a framework, mainly to ensure all topics are being covered and to ensure a constructive approach. Everything is formulated as straightforward, uncompounded, unbiased, unjudgmental and non-threatening as possible. A try-out interview is conducted to validate and to improve the set-up. All interviews will be recorded through electronic means (either text or audio, no video). Elements of Kvale (2007); Lazar, Feng & Hochheiser (2017); and Preece, Rogers & Sharp (2015) has been incorporated. The core parts are phrased in Dutch for the convenience of the interviewer.

- **Introduction**: give a short motivation and the aim without directing the outcome.
  - > If applicable: provide simple refreshments (but no crunchy food).
  - > Asks whether the interviewee minds to be recorded (and start recording).
  - > Tell the interviewee that (s)he can take a break whenever (s)he wants.
  - > Tell the interviewee that (s)he can always decline to answer a question.
  - > (In Dutch) Dankjewel dat je mee wil werken aan dit onderzoekje naar de OC. Ik doe dit naar aanleiding van mijn “afstudeerproject” voor het Bachelor Honours Programme. Onderdeel van dit project is om te achterhalen hoe we in de toekomst - specifiek - adviesleden meer kunnen betrekken en vooral hoe we ze betrokken kunnen houden in de OC. En daar zou ik graag jouw ideeën en feedback over willen hebben.

- **Start** – easy questions: to build trust and prepare interviewee for more difficult questions.
  - > (In Dutch) Je bent nu n-jaren lid van de OC. Hoeveel jaren daarvan ben je, wat we nu noemen, *kernlid* en *advieslied*?
  - > (In Dutch) Hoe ben je destijds betrokken geraakt met de OC? Wat was jouw aanleiding om lid te worden van de OC?

- **Main** – core questions: exploring the topics while providing multiple opportunities to continue. Be adaptable and flexible; follow the interviewee in his/her thought.
  - > (In Dutch) Zoals je weet, zijn er dit jaar een aantal structurele veranderingen doorgevoerd. Heb je meer ervaringen met zulke veranderingen binnen de OC? Hoe ervaarde je deze veranderingen? Hoe ervaar je de veranderingen van dit jaar? (Vraag specifiek ook naar de reorganisatie - de tweedeling tussen *kernleden* en *adviesleden*).
  - > (In Dutch) Wat ik merk is dat is vooral de adviesleden sinds de reorganisatie veel minder betrokken zijn geworden bij vooral de vergaderingen. Herken jij je in dit beeld? Wat denk je dat voor jou persoonlijk daar de aanleiding van is?/Waarom denk je dat ik dat beeld heb? Hoe kunnen we daar verandering in brengen denk je?
  - > (In Dutch) Heb je ideeën hoe we adviesleden in het algemeen meer kunnen betrekken in de OC?
  - > (In Dutch) Hoe zie jij jezelf over een jaar binnen deze commissie?

- **End** – easy questions: to defuse any tension and anxiety.
  - > (In Dutch) Denk je dat deze vorm van organisatie - de tweedeling - een goed idee is? Waarom wel/niet? Wat moet er anders of beter? Toekomstbestendig?
  - > (In Dutch) Zou jij deze zin willen afmaken: als ik de voorzitter van de OC zou zijn, dan zou ik…

- **Debriefing**: summary, space for the interviewee to add something and thank-you.
  - > Give a summary of the main lessons learnt and correct any misunderstanding.
  - > Ask the interviewee whether there is something (s)he wants to add.
  - > Switch off the recording, signalling the interview has ended.
  - > Thank the interviewee.
  - > Provide more details about this intervention, the goals and the purpose of the interview to increase the feeling that time is spent well.

***Findings, discussion and recommended changes***

Interviewed were three of the four current *advisory members* and the current *officer of educational affairs* (as likely future *advisory member*). This section first gives a summary of the interview results while reflecting on some topics discussed. After that, the recommended changes will be given.

The members interviewed are very diverse. They have experience in this committee ranging from 1 to 5 years from which 1 to 1.5 year having the role of an *advisory member.* Some members experienced one role within the committee while others experienced multiple roles (officer of educational affairs*, core member, advisory member,* chairman*)*. Some members got involved because of his/her general interest in education while others got involved because of their position e.g. being the candidate officer of educational affairs.

The members who are longer involved in this committee indicated that this is the first year they have experienced such major changes. In the past years, the discussions on change were mainly about the role of this committee; more especially the ratio between educational affairs and activities. It is a trend that the Education Committee is increasingly organising more activities while the focus should be on discussing educational affairs. In the end, however, all past changes were merely affecting the structure of the agenda.

All the interviewed *advisory members* are positive about the reorganisation and they want to keep this structure. The first reason is that the reorganisation results in a more streamlined and clear structure; all members know what they can expect and what their responsibilities are. The second reason is that the *advisory members* are explicitly not expected anymore to support the organisation of activities; this enables them to focus on educational affairs only.

However, all interviewed *advisory members* were pointing out the same issue: they are not sufficiently aware when they should join a meeting. They experience the information provision as insufficient and, therefore, they cannot effectively decide on whether a meeting is relevant or not. Currently, all interviewed *advisory members* are only joining meetings if they have something relevant to contribute (proactive), but some interviewees would like to be invited more often as well (reactive).

All interviewed *advisory members* recognise and acknowledge that the involvement of this group is reduced significantly as a direct result of the reorganisation. All members indicated that this is not a major issue although some *advisory members* would like to be a bit more involved again.

The interviewed *advisory members* see themselves as a broad body of knowledge who will join meetings if requested by the committee or if they have something relevant to contribute. Much more involvement may cause the *core members*, responsible for the day-to-day activities, being less involved as the experience shows that the sense of responsibility is likely to decrease.

Some interviewed *advisory members* add that the committee should give them the urge or incentive to join meetings if their participation is desired.

Finally, several advises were discussed related to the committee in general and the *advisory members* in specific. These are listed here since it is not directly linked to the aim of this paper.

First, the number of *core members* should not increase too much but the diversity is considered important (study/cohort/gender/nationality). The group of *advisory members* may increase in size to cover all backgrounds (e.g. FC, PC, QA), but it requires more assertiveness to let it function.

Second, *advisory members* should be kept involved in the committee since they have a lot of knowledge and experience in their field of expertise.

Third, more attention should be paid to recruit faculty council members who are Inter-*Actief* members as well, since those people are having a more high-level view of the faculty.
Fourth, the committee should focus less on activities as that is currently at the expense of discussing educational affairs. Since the committee is, in essence, not aimed at organising activities, the frequency, scope and type of activities should be limited (but not fixed).
Fifth and last, the committee should discuss with CoLeX (Committee for Lectures and Excursions) about the grey area in which both committees operates when it is about organising activities. The committees should agree on the division of topics it want to cover.

To serve the original goal: "involving the *advisory members* by creating a favourable situation in which they feel engaged to the committee and in which they are motivated to make valuable contributions", several changes could be proposed:

- **Further strengthen the separation of educational affairs and activities in the agenda.**
  It is recommended to start with all the educational affairs (including the discussion of the consultative bodies), giving the *advisory members* the opportunity to leave the meeting after the educational affairs are discussed.
- **Appoint a core member as the advisory-contact person.**
  This person is responsible for all the communication between the *core members* and the advisory members. This includes: sending a small summary of relevant information to the advisory members after each meeting; actively requesting specific advisory members to join relevant meetings; passing information from the advisory members to the core members on minor topics.
  This improves the communication between the *core members* and the *advisory members*. Furthermore, it gives the *advisory members* the possibility to be reactive instead of proactive.

Other options have been considered as well. Options to meet remotely, such as having conference calls, are not recommended since the expectation is that it will ruin the atmosphere of the meeting and since it will probably take more time than the benefits it generates. Options as bundling agenda points to meet once in a while are not likely achievable since educational issues are usually quite urgent. The longer it takes, the less relevant an issue will be. Furthermore, it increases the chance of splitting the committee into two parts: meetings with only *advisory members* and meetings with only *core members.* Options such as rotating the attendance of the *advisory members* are not likely to be effective since all *advisory members* are specialised in a certain field of expertise. Based on the topics discussed, certain *advisory member* are much more valuable than the others.

## LEARNING EXPERIENCE

The main lessons I learned from my change approach are related to my personal development goals. Alexandra, the UT coach who I had biweekly meetings with, encouraged me to see things another way; less analytical and formal but more from a social perspective.

The change process that has occurred between September 2017 and April 2018 were all structural changes. Those fit into my Insights Discovery profile - 93% blue and 71% red - since it was all related to topics like tasks, performance and clear expectations (facts).

The change proposal, however, was a mix of structural changes and behavioural changes. The latter is out of my comfort zone since I had to confront people on a personal level (emotions). Although I am used to confront people about their professional conduct or performance, tackling someone with more experience/knowledge about a topic which can be interpreted as a personal attack is hard for me. It feels like a personal attack rather than tackling.

To overcome this, I learned that it is possible to approach people in a less direct way. In the interviews, I used a generalisation to express the feedback I have whereupon I asked whether someone recognizes him/herself in it. This was easier for me since the "negative feedback" is not directed to a specific person anymore, but to a group of people. The limitation of this approach is that it cannot be applied when it is directed to a single person but the way of formulating feedback as a thought and asking whether someone recognizes it, can be used.

Alexandra and I also discussed a lot about giving feedback, and how someone is likely to receive it. This includes the role I am in while giving the feedback. I have experienced that personal negative feedback is not necessary always interpreted by others as personal criticism.

With regards to the remainder of this project and the overall Honours Programme, I think that I am still most comfortable with leading structural changes: implementing (complex) changes based on fundamental principles in a consistent, ordered and precise way. I noticed in this project that I really liked the way how I documented the changes: quite extensive and logical.

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Processes of Change: Learning by Doing

# Plot your Trip

The Change Process of a Prototype

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# Contents

# Abstract

Apart from my regular study of Psychology, the Process of Change track of the honours programme evoked in me a certain interest in business. However, I did not know how to deepen my knowledge in that field until I saw the opportunity of the last honours' module: Learning by Doing! Having previous experience with prototype development within my regular study, I resumed on developing a map that is able to present value to potential customers. This happens by plotting a personal trip on a map; whereas the modern-type design is supposed to represents aesthetics, the personal travel-route as well as included personal pictures are supposed to increase involvement and personal value. Within the development process I implemented the lean startup approach, meaning that I iteratively received and implemented feedback in order to only implement features of value. Further, I relied on pre-suasion literature of Cialdini to include persons in the development and feedback process. Throughout this course I acquired several skills, mainly being related to the lean-startup approach, prototype development, graphical design skills, and, maybe the most important one, how to nudge other persons into being part of my own change process. I also showed personal development due to sessions with my coach; I was finally able to improve my time-management in a structure way with help of my coach.

# Introduction

Stemming from the field of Psychology, most of the topics treated in the honours track "Processes of Change" was new to me. If it was for the philosophical component of the first module, leadership, or the field of consultancy, I mostly was curious to explore all the new fields and literature I was facing. Over the course, I realized that I feel quite affine to the field of business. However, one major obstacle to that was that I never really made personal experience in business-related fields. There are many ways I could approach this problem, but due to the fact that I am given the opportunity in my final Processes of Change module to steer my own change project, I thought a good way to make experience in that field is simply *learning by doing.* Furthermore, with the skills I acquired so far in the honours programme, I was also enthusiastic to steer a change process. In order to gain business-related experience, but also be able to make use of my skills as a change agent, I came up with my personal change project: Designing a Prototype.

At the University of Twente, I made contact with persons coming from all kinds of nations. Talking with them about their long way to the Netherlands, I realized which emotional value these travels has to them. Moreover, also students coming directly from the Netherlands were able to show me all the experiences and memories they made while being on travel. During a casual conversation with an entrepreneur-wise interested friend of mine, the idea to create a map containing personal value emerged. Building up on the omnipresence of the topic of travel, a change process emerged in my mind: The prototype development of a map, plotting a personal travel. The important role of visualization of information has been stressed multiple times in literature (Tufte, 1992; Tufte, 1997; Tufte, 2006). Transferring visualization not only on quantitative data, but also personal pictures, the emotional values is supposed to increase by graphics of personal experiences. Also driven by my tendency to design and aesthetics, the idea evolved into a more and more manifest form.

Although the overarching goal of this project would be to end up with a nice prototype, I personally am interested in the procedure of developing such a prototype. In order to do so, a lot of changes have to be implemented, for which I require the help of other persons. In addition, the product needs to be built up on feedback and information on the target group. My personal learning goal for this module is to learn how to include specific persons in my own change process and how to tailor, or rather *change,* my product according to their preferences. Fortunately, I already made experience in tailoring to a target group in the module "Change at the Individual Level". With the help of an expert, I was able to tailor a change intervention to a specific target group. In this project, this tailoring will be implemented concerning the target group of the prototype. Moreover, based up on Cialdini (2016-a), I could use pre-suasion mechanisms to support my change intervention. In this process, I will make use of that to include persons in my change process.

Last, to also make direct experience with business-theory in my change project, I am looking forward to also apply business theory in my project to also make contact with business *theory*. I will do so by incorporating aspects of the lean startup approach in my methodology.

In sum, I want to develop a prototype which is nice in design and aesthetics, but also shows emotional value to the target group. Although the overarching goal is to create a prototype for which some of the target group would be willing to spend money on, my personal goal for this module is to learn how to bring other persons to contribute to your change process, and to also make experience with business theory while doing so. The prototype to be designed is a map in a minimalistic, colorful design, which is able to plot a personal travel and to create personal value by also incorporating personal pictures of travels. Based on that, I will start the change processes of my prototype.

# Change Goals

## The Target Group

Due to the nature of my prototype, I chose the target group of **traveling persons**. Although being a rather broad target group, this is the target group I am aiming for when designing a map to plot *travels.* However, since almost every person is traveling within their lives, I specify this target group to exceed the amount of 7 days of travel per year. This could then be a travel including several stations, meaning that the travel can be plotted, but still includes many travelers and thereby keeps the target group of the product quite broad. There are no further inclusion criteria concerning the target group; because the product is thought to be purchasable for a low-range price, monetary limitations of the target groups are excluded.

## Change Goals

Since I want to create a map which's appearance is pleasant to the customer to that extent that he or she is willing to spend money on it, the first change goal is set as:

*When presenting the final prototype, 30% of the asked feedback should state to find the design aesthetically attractive.*

Also, besides physical attractiveness, the map should also be able to please customers in an emotional way. For that, personal value is created by plotting the personal travel and including personal pictures. However, since the prototype cannot be tailored to each person specifically, the respective person has to imagine own personal pictures in the given prototype, which is why the term *potential* emotional value is used in this context. Thus, the second change goal emerges:

*When presenting the final prototype, 30% of the asked feedback should state to see potential emotional value*.

Last, with the overarching goal being to develop a prototype which is viable on a sales level, the final change goal is:

*When presenting the final prototype, 20% of the asked feedback should declare to see themselves buying the prototype, when offered after a travel, for a low range price not exceeding the amount of 10$.*

Because the (end-) product would be able to automize the map development process, the overall sales strategy would be to acquire cooperational sales structures, offering the product to many potential customers through organizations which are located in travel-related sectors. With that structure, no few but expensive sales pattern shall be constructed, but rather a cheap product which can be sold to a large amount of people. 10$ is chosen to function as a broad categorization of a low-range price and thus giving an impression how the product would work with this sales strategy.

## Change approach

As the overall approach to creating the prototype, the "Lean Startup" methodology, firstly proposed by Ries (2011), was chosen. The Lean Startup methodology states in its essence that before continuing to further develop a product, the assumptions must be validated by feedback. Testing the product iteratively avoids steering in fruitless directions. This tries to eliminate wasted effort and supports tailoring to the market or target group. Moreover, the method contains three major steps: build, measure, and learn. This feedback loop means to first *build* a product, *measure* how it is perceived, and *learn* from that feedback. In line with this method, first of all an MVP (Minimal Viable Product) is built. This is the product in its very first steps; when this MVP is validated, further development can be implemented. By testing the product iteratively and incorporating feedback steadily, the product is built up on the feedback and tailored to the target group.

However, albeit this method is great to tailor my prototype to the target group, it still requires the help (or feedback) of other persons. To get those persons to help me in my process, I chose to use several principles based on the book Pre-Suasion written by Cialdini (2016-a). Those principles are taken from the following chapters of the aforementioned book:

- Chapter 6: *Commanders of Attention 2: The Magnetizers* (Cialdini, 2016-b). This chapter states that three factors influence the attention naturally hold up: Self-Relevance, Mystery, and unfinished objects. Whereas mystery does not play a big role in my change process, I can underline the Self-Relevance by approaching either persons affected by the honours programme, thus having a personal reference to the project (and who of course also travel), or persons who simply are enjoying traveling a lot. Furthermore, the aspect of unfinished objects can be implemented quite well, being in the development of a prototype.
- Chapter 8: *All the Right Places, All the Right Traces* (Cialdini, 2016-c). Here, it is stated that in order to persuade, the place and context needs to be adjusted. Stretching that further, meaning that the whole situation needs to be positive when approaching people to give feedback, persons which are stressed, focused on other activities, or quite busy will be avoided. Instead, I will only ask people for feedback which seem open and in a positive mood to me.
- Chapter 14: *Post-Suasion: Aftereffects* (Cialdini, 2016-d). This chapter is probably the most important one for the methodology implemented; it states that once people commit to do something, they are more likely to actually do it. This means in my case that I will ask people for feedback beforehand and make use of their commitment of help in order to gain feedback.

Last, I will discuss any feedback received with an **expert** concerning my target group and business-related field, who appears to be my coach in the current honours module. My coach himself is personally interested in travelling, while simultaneously being interested in entrepreneurship and also has made experience in that field himself. By discussing all feedback with my coach, I am optimistic to create a viable prototype in the end.

## Implementation

First of all, an MVP was designed in order to test the overall design idea and also different conceptual prototypes. After presenting the different concepts for feedback, the following conceptual prototype was validated:


*Figure 1.* The validated conceptual prototype

The characteristics validated were a minimalistic design plotting the travel on the country or continent the travel took place, surrounded by personal pictures and a caption below. Additionally, a colorful minimalistic design was validated for further usage, whereas an example can be found in Figure 2. Still, it has to be noted that the color of the product idea is not limited to the one used in the prototype, it rather functions as an *example,* as indicated by the fact that it is a prototype. The first outlines of the maps were created by making use of the Google Maps API ‘Styling Wizard’ (‘Styling Wizard: Google Maps API’. Google, n.d.). There, the google maps design can be personally adjusted in many ways, while I personally focused on the colors.

*Figure 2.* The colorful minimalistic design which was validated in feedback.

Afterwards, my chosen expert told me that one preference he rarely sees in implementation is to focus on the area of travel. Therefore, I included a more narrowed picture in the second version of the prototype. Moreover, the concept of Figure 1. was further implemented with the incorporation of feedback to include a nice background as well to the narrowed picture. Therefore, I chose a blurred picture of the whole country as a background, whereas the exact area of travel is clearly visible as a zoomed-in picture. Last, the concept of personal pictures which are included is also implemented with exemplaric pictures. All of this was implemented using the graphics programme GIMP. Building up on that, the second version of the prototype was produced:


*Figure 3.* The second version of the prototype.

This prototype received great feedback. Asking my peers and friends which are included in the target group for their opinion on my three change goals ("Do you find the design pleasant?", "Do you see potential emotional value?", "Can you see yourself buying this for a low-ranged price not exceeding 10$?"), the answers I received mostly stated yes. However, although this is nice to hear, it is not really constructive as feedback. Because of that, I went on to ask for points for improvements. Also, this ended up to not be that fruitful, because the feedback I mostly heard was that it "would be nice to change the colors", which implicates that I did not explain the function of this prototype well enough, and one voice stating that a different arrangement of the pictures would be nice. However, feedback of other persons, exceeding this one voice in numbers, were opposed to this feedback. The feedback I could finally implement came from my expert himself, proposing to use arrows instead of the dotted lines to indicate traveled routes. These arrows would allow to also include personal pictures which refer to the traveling itself than only the stay itself. Build upon that feedback, the third prototype emerged:


*Figure 4.* The third prototype

Again, the general reception of this picture was quite nice. Feedback I collected was mostly referring to the fact that the stays could be indicated by pins. However, the feedback I received now was that the old, dotted lines of the second prototype are aesthetically more pleasant to the ones asked for feedback. Pictures relating to traveling itself and not the stays could still be connected by simply connecting the pictures to the dotted lines instead of to the arrows indicating the traveling. Therefore, the final prototype emerged, including pins and returning to the old design of the dotted lines as can be seen in Figure 5. Moreover, the whole development process can be seen in Figure 6.


*Figure 5.* The final Prototype

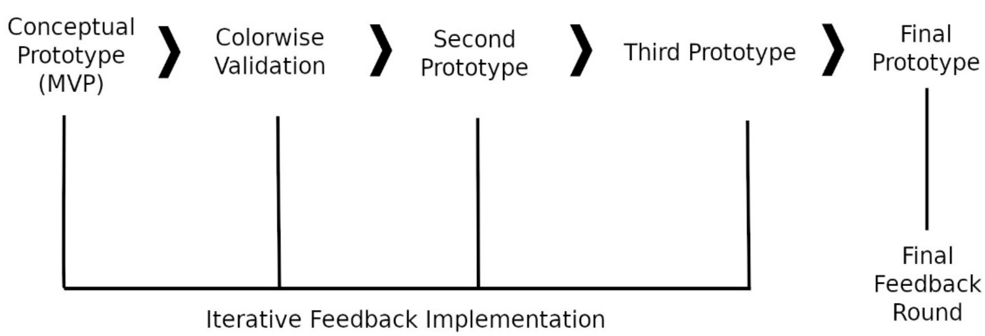


*Figure 6.* The development process over time

# Results

In order to measure my final results and check if the change goals were reached, I implemented a last feedback round of 10 persons. Each person was approached in line with the principles mentioned in the methodology section; the exact mail sent can be found in Appendix A. The results can be seen in Table 1.

Table 1

*The results after the final feedback*

| | Do you find the design aesthetically pleasant? (Change goal 1) | Do you see potential emotional value in this prototype? (Change goal 2) | Can you see yourself buying this for a low-ranged price not exceeding 10$?" (Change Goal 3) |
|---|---|---|---|
| Participant 1 | Yes | Yes | Yes |
| Participant 2 | Yes | Yes | Yes |
| Participant 3 | Yes | Yes | Yes |
| Participant 4 | Yes | Yes | Yes |
| Participant 5 | No | Yes | Yes |
| Participant 6 | Yes | Yes | Yes |
| Participant 7 | Yes | Yes | No |
| Participant 8 | Yes | Yes | Yes |
| Participant 9 | Yes | Yes | No |
| Participant 10 | Yes | Yes | Yes |
| Total Percentage 'Yes' | 90% | 100% | 80% |

After analyzing the data, it becomes clear that all the change goals are met. Not only the first change goal concerning the aesthetical impression on the participant clearly exceeded the targeted 30% with a total proportion of 90 % finding the design aesthetically pleasant, also the goals regarding the emotional value (30%) and the willingness to spent money on the prototype (20%) were reached with percentages of 100 % and 80 %, respectively. The person answering 'No' in the first question stated that the design is not modern/minimalistic enough for her personal taste, while the two 'No' answers in the third question emerged because one participant told that he would design such a product on his own, while the other participant also stated that for him travels are supposed to remain in memory, not on paper.

## Further implications

Besides the result of the change goals, the last feedback round again enabled deeper insight into the target group's needs. For the first time within the scope of this project it was mentioned that labels of certain areas would please the participants. This implicates that further prototype testing with labels for certain areas would be of value. Also, the number of pictures was subject to discussion. Letting the customer decide the amount and location of the pictures would be a solution for that. Also, the size and material of the image are apparently of important; much feedback received stated that starting from a size of DIN A3 or DIN A1 the respective person could imagine purchasing the product. Other feedback stated that if created as a product of glass, up to 70$ would be taken into consideration for purchasing the product. Depending on that, further development should also account for the material and size used. When the iterative prototype testing would stagnate in feedback, validation of the prototype as a business idea would be the next step to take. Finally, when this also took place, the automatization of the creation process would be the final step to take in the product development.

# Learning Experience

## Learning within the project

Throughout this project, I learned a lot for myself. This happened on different levels. First of all, I learned how to incorporate people and feedback appropriately in your projects. Although I have participated in many projects myself, being this independent, while being dependent on the feedback of other persons, was a new experience to me. Whereas I was rather shy in the beginning to ask for feedback, I got more and more secure and now asking for feedback is no problem for me anymore. Second, I learned how to tailor a product to a target group. Receiving and incorporating feedback, I learned how to be flexible in designing a prototype and how to adapt to the needs of a certain target group. In addition, I also learned a lot about graphic design, having started the project without any skills in that area and now being able to design prototypes with the help of graphic design programmes such as GIMP.

Another learning objective I was able to reach was to gain more experience in the business-related field. I, being interested in that field without any experience so far, saw in this project the opportunity to learn more about business theory while making practical experience with it. Although this experience does not specifically refer to fields such as sales or management, I was able to make experience with the “Lean Startup” method (Ries, 2011) and could even implement it, which was an unused, but still great experience for me.

When I could change the way I approached this project, I realized several things. A danger when collecting data by means of questions is social desirability (Grimm, 2010). This means that the answer they give may not be the honest answer, but it is rather designed in such a way that the social image they have is maintained. This can also be applied to my case, where most people I approached for feedback happened to be within my social network. Most of the persons I approached could have stated that they like the prototype in order to not hurt my feelings or in general to be nice to me. To avoid social desirability, I should have asked stranger people. Also, I could have given from the beginning on more room for feedback, or more time to think about the feedback. When receiving feedback in person, I mostly got quite short feedback, whereas my last feedback round, which took place per mail, gave extensive information about the target group. Although I also took much time when communicating in person over the prototype, I now have made the experience that the feedback which is given in a more structured way also gives more insight into the target group's needs.

When taking a step back and looking at myself as a change leader, I find it quite interesting to what extent the Insights Discovery Profile is matching my personality (in my opinion). Although I made various personality tests, if it was in my regular or honours study, but I seldomly found such a fit between my personality and my Insights Discovery Profile. According to that, I am an *observant coordinator*, which means that I am quite objective in my thinking and, as implicated by the name, also observing and analyzing. I can see this again in my project, where I took a quite objective and analyzing role when developing the prototype. Also, coordinators appear to be sincere and diplomatic, which helped me a lot when approaching people. A negative side can be that I have high standards for myself, which puts myself under pressure. However, this also drives me to higher performance.

In sum, it can be stated that the project helped me acquiring a range of skills, which are how to include persons in my personal change process, how to properly tailor a product to a target group, how to use graphic design, and last, how to implement the Lean Startup method. Although I could have approached the project in different ways, such as stepping out of my social network in order to avoid social desirability or asking for the first part of the feedback in another way, this project successfully helped me to improve my skills and to build a prototype. However, in all of the aforementioned points my personality as a change agent was visible, whereby I took the role of an observant coordinator, matching my insights Discovery Profile.

## Development throughout the meetings with my coach

At the start of this module, I was looking forward to gaining more experience in the business-related field. Therefore, I thought the coach would be a great opportunity to receive help while doing so. In the first session, my coach asked me what I specifically want to know more about, or what I specifically want to reach within this module. A lot of options came to my mind, I wanted to know more about sales, I wanted to be able to conduct proper technical analysis, I wanted to know more about types of management, while also getting back to my sports routine…

After discussing all those things, we came to a conclusion: The "problem" present is not the lack of motivation, but the lack of time. Therefore, we agreed on working on my time management.

Over the course, it was possible to me to have extensive contact with my coach in almost weekly meetings. We first agreed that I search for different time management strategies, which ended up being fruitless, because I could not find any serious approaches to that on the internet. Then, my coach told me about the book "Eat that frog!" by Bryan Tracy (2017). This implicates that the first thing to do at a day should be the task one is least motivated for. This is further elaborated with the metaphor of having to eat a frog; if you already have to eat a frog, it is the best way to do it right away, and when there are two frogs to eat, start with the bigger one, then you already have done that part. This approach was further combined with literature from the book "What the most successful people do before breakfast" (Vanderkam, 2013), which emphasizes the benefit of the early morning hours. Whereas I used to wake up every day at 5:30 AM, my sleep rhythm shifted to a later time due to more stress and the connected work to do also in the evening. I tried to combine those two approaches by trying to wake up at my old time again, 5:30 AM, and then start with the task I was least motivated to do in order to already have done my work concerning that task for that day. This appeared to be quite a hassle in the beginning, because I had many private appointments in Germany which interfered with a daily routine. However, after those appointments were over, I was able to get back to my old routine and enhanced my productivity by the combination of the two approached given by the literature.

To conclude, the meetings with my personal coach helped me a lot in terms of time management. I was able to develop an own time management strategy based on literature, which resulted in me now getting up at 5:30 AM during workdays to start my day off with my biggest challenge.

# Appendix A – The Email Asking for Feedback

Dear all,

Thank you for helping me out! Over the course of my last module in the honours programme, I designed a prototype which shall plot your own travel on a map. This map could then be printed out and hung up in a frame; the latest version is attached to this mail. Now, I need to receive feedback for that. In order to do so, I have three questions for you:

Do you find the design aesthetically pleasant?

Also, imagine this prototype would plot your own travel and contain your personal picture. Then, the question emerges:
Do you see potential emotional value in this prototype?

And last, given the case that purchasing such a map would be offered to you after a travel, plotting your own travel and containing your own personal pictures.
Can you see yourself buying this for a low-ranged price not exceeding 10$?

It has to be stated, that the colors of the design could be chosen by you. Also, please answer in a private message to me.
Thanks!

Best,
Julian

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BLUESHELL

# Consulting a startup organization

**Rik de Sain**

# Table of contents

Rik de Sain
S1722069

**Introduction**

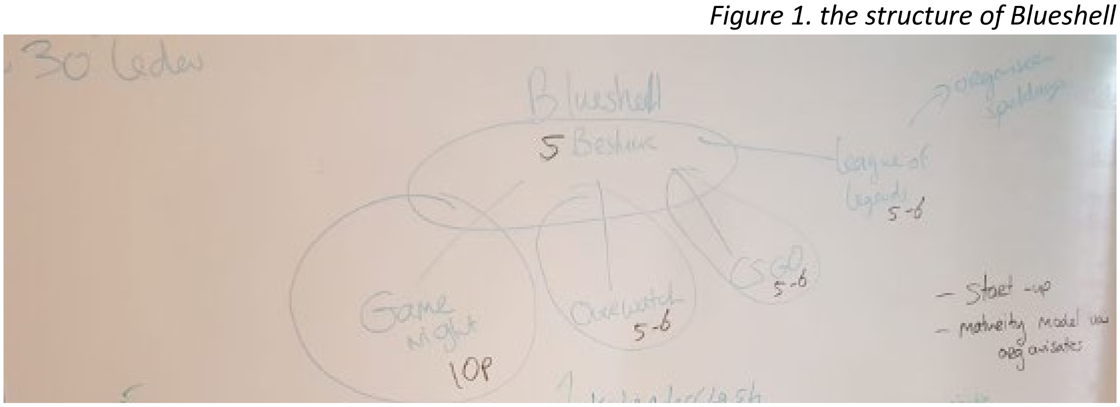
For my project I will be trying to make a change in the organization Blueshell. Blueshell is a startup association on the University of Twente. It was founded around September in the start of this academic year. The founders, who are the current board, saw that there was a demand at the university for organized tournaments in games and that this demand was not yet met. They then decided to found Blueshell as the answer to this demand. Blueshell's goals are to organize the gaming events that their members want to see. The current structure of Blueshell follows.

The organization works in three parts:

| | |
|---|---|
| The members: | the members go to the events. They pay a yearly fee to Blueshell and they also pay for the events they go to. |
| The committees: | there is a committee for each game for which there is enough interest. The committees then organize this event. The committees consist of people who are interested in the game and representatives of the board. The committees also have a chairperson who makes sure all the work is divided over the committee members. |
| The board: | the board is there to regulate the committees, they make sure everything runs smoothly and that no two events are planned on the same day |

The structure of these parts can be seen in figure 1. Here it also states the committees that Blueshell has at the moment plus the number of members that each of them has. The diagram also shows that the board has a representative in each of the committees.

*Figure 1. the structure of Blueshell*




At the moment the board fills a very democratic leadership role. They cooperate with their committee members to organize the events. The chairperson also fills a democratic leadership role since they work together with their committee members to fulfil their goals[1].

The board does not have a lot of experience with leading this kind of association they have a multitude of problems. In my project I am going to take on the role of consultant for their association. This is something we learned in module 5 and is something that specifically interested me and that's why I decided to find an association to consult for. For the consulting I used a lot of the literature that was provided to me by D. H. van Dun. This literature mostly concerned Kaizen[2] and the five why's principle[3].

All of these concepts will be talked about in more detail later. Moreover in this project I will be talking mostly in the we-form, this because as a consultant I am not doing everything alone. I will be helping Blueshell with a problem, but we will be solving the problem together. The target group depends on the initial talk. Afterwards I will be determining where the problem lies within the association and making the people causing the problem my target group.

**Change goals**

General goals:

My goal for the project is, most simply put, being a good consultant to Blueshell. The problem In this goal is mostly the definition of good, I do not have a lot of time to spend since one module is quite little for a consultancy job. That's why I set my goal to solving one problem of Blueshell in a matter that is satisfactory to them. The meaning of this is that I will be trying with them to pinpoint their problems and afterwards make sure that a solution is thought of for one of these problems. When I've gotten to the step where we have created a solution to the problem I will have reached my goals for this project. Afterwards I will be continuing to work with Blueshell to implement and reflect on the changes we made but this will be outside of this project's scope.

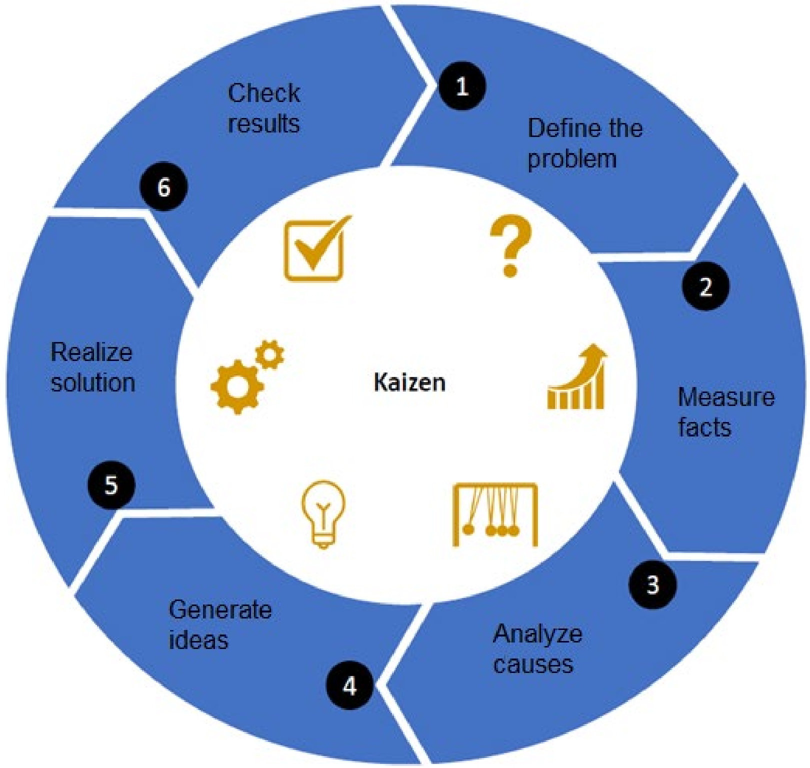
Specific goals:

After the first meeting there were some problems within Blueshell that needed changing the specific goal I set was to fix their problem "Members do not show enough initiative."

**The change approach**

I decided to take on this project in the typical consultant matter which meant that I first had a talk with the board of Blueshell to examine which problems play in the organization. This meeting is also very helpful to make sure that I am on the same page as the board in terms of things that play within the association. Afterwards I thought of a possible cause to one of the problems, as I've learned in our modules most of the times a problem has a lot of different underlying problems and it's also quite difficult to pinpoint the exact problem without doing research. Therefore a research step will be needed in which I will be testing hypothetical underlying problems. After this research step I will discuss again with the Blueshell board so that we can come to a possible solution. After implementing the solution we will have another meeting to see if the implemented solution works. Then we will tweak the solution if necessary. In this last meeting it will show whether or not I succeeded in my original change goal. The approach that I used is a lot like the steps of kaizen, these steps can be seen in figure 2.

*Figure 2: the 6 steps of Kaizen[4]*




Define problem:

This is the step in which the problem is defined. In my project this is the initial meeting in which I ask the Blueshell boards about the problems they experience.

Measure facts:

In this step the facts are measured. This corresponds again to the initial meeting, after asking about the initial problems I will ask about why they think the problems are caused. Thereafter there will be a survey to the members of Blueshell so that we can see whether they experience the same problems that the board experiences.

Analyze causes:

This step is about taking the information and analyze what the main cause is for the problems. My project goes about this by in the initial meeting asking the board why. This concept of asking why will be explained later in this report. Then I will get together in the second meeting to discuss the found resources. In this meeting we will be discussing the causes and we will also be looking at possible solutions.

Generate ideas:

This is the step in which ideas are made to solve the analyzed causes. This means that we will be discussing possible solutions, under the motto of “No idea is a bad idea”, and then we will pick the idea that seems the best.

Realize solution:

In this step the found solution is implemented. In this step near to no action from me is needed. The board will implement the found solution and I will keep in touch with them to ensure everything is running smoothly.

Check results:

This is the final step in which we check if the solution actually functions the way it should. In my project this will be the last meeting in which we decide if the proposed solution works if it is we will make sure that it keeps working in the future. If not we will see if the solution can be changed with the newfound information.

Normally when implementing Kaizen these steps are part of a cycle, this way after the results are checked new problems can be defined or the original problem can be redefined. For my project, mostly due to the lack of time, I will only be completing one cycle.

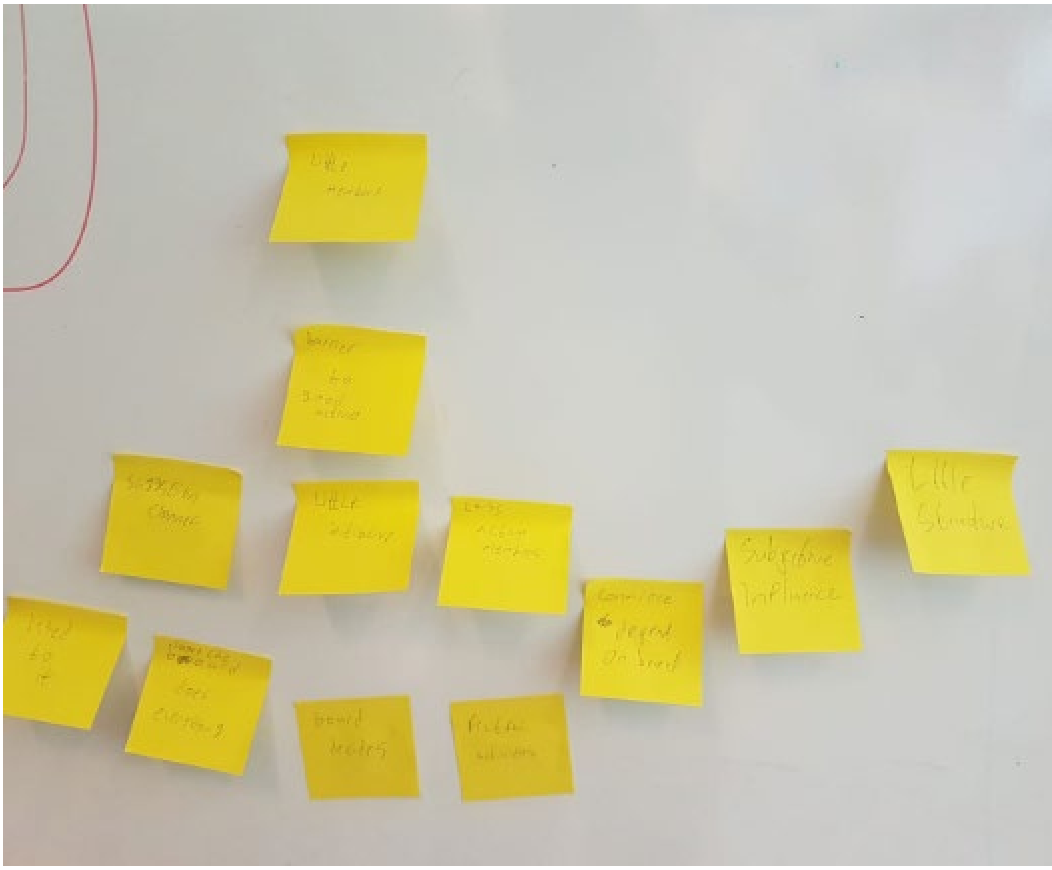
**The Change Execution**

Define problems:

In the first meeting we had a talk about all the problems Blueshell experiences. This was done using post-it notes. I asked the board members to write down the problems they saw and once all the problems were on the board I started asking them what they thought was the cause of one specific problem that spoke to me namely “Members do not show enough initiative.” This asking about the underlying problems, is part of the 5 why’s principle[3]. So I asked them the causes of each problem and afterwards I asked them the cause of the cause etc.

This led to the post-it notes in figure 3.

*Figure 3: the problems of Blueshell*

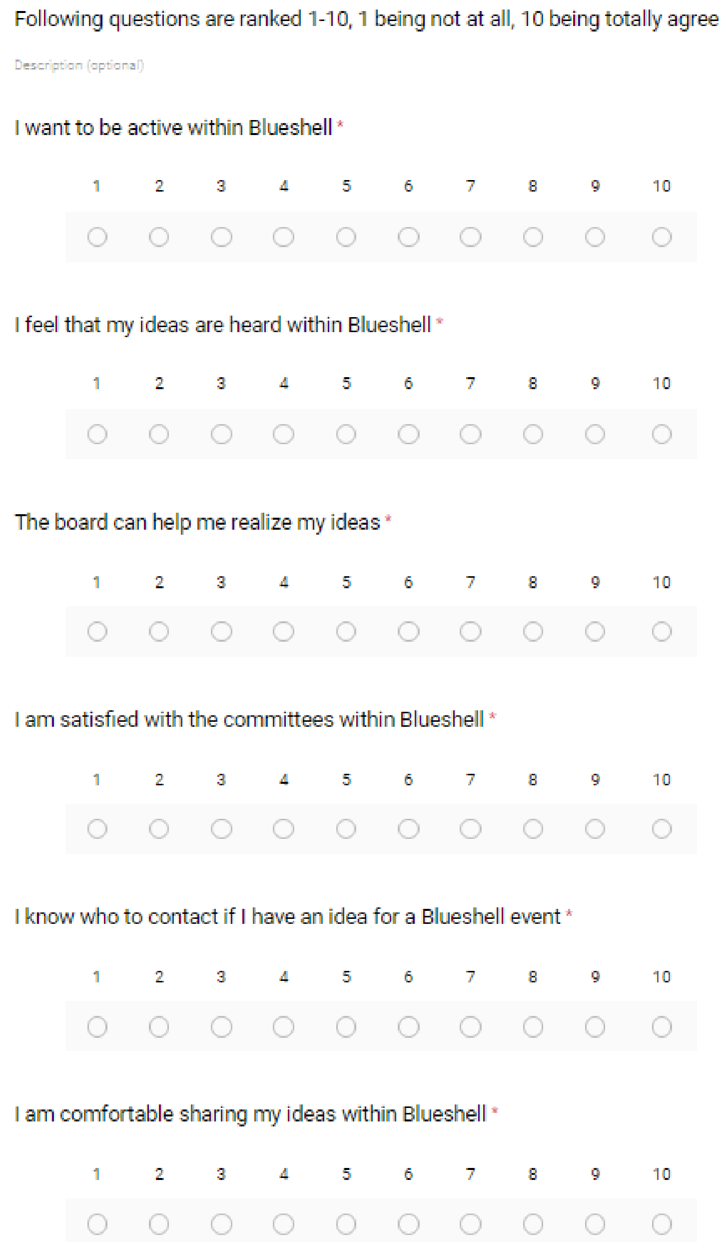



From all these problems I saw a few root causes that might cause the fact that members show little initiative.

Measure facts:

To test the possible root causes we send out a survey to the members of Blueshell. After determining the level of activeness of the person filling in the survey we asked the questions in figure 4.

*Figure 4: the survey*


Following questions are ranked 1-10, 1 being not at all, 10 being totally agree

Description (optional)

I want to be active within Blueshell *

1 2 3 4 5 6 7 8 9 10

I feel that my ideas are heard within Blueshell *

1 2 3 4 5 6 7 8 9 10

The board can help me realize my ideas *

1 2 3 4 5 6 7 8 9 10

I am satisfied with the committees within Blueshell *

1 2 3 4 5 6 7 8 9 10

I know who to contact if I have an idea for a Blueshell event *

1 2 3 4 5 6 7 8 9 10

I am comfortable sharing my ideas within Blueshell *

1 2 3 4 5 6 7 8 9 10

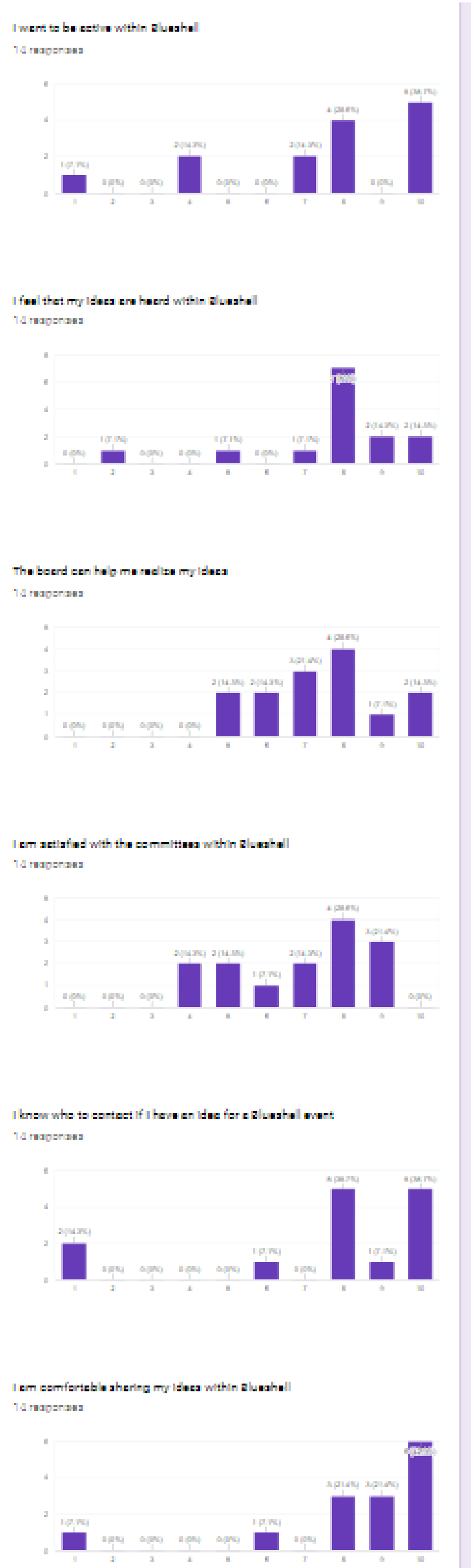
This survey is designed to find the reasons why members do not show initiative.

The problems that are tested with these questions are:

- The feeling of safety within Blueshell
- The feeling of appreciation within Blueshell
- The knowledge of how to show initiative
- The Feeling of appreciation for Blueshell

The results to the survey can be seen in figure 5.

*Figure 5: the responses to the survey*



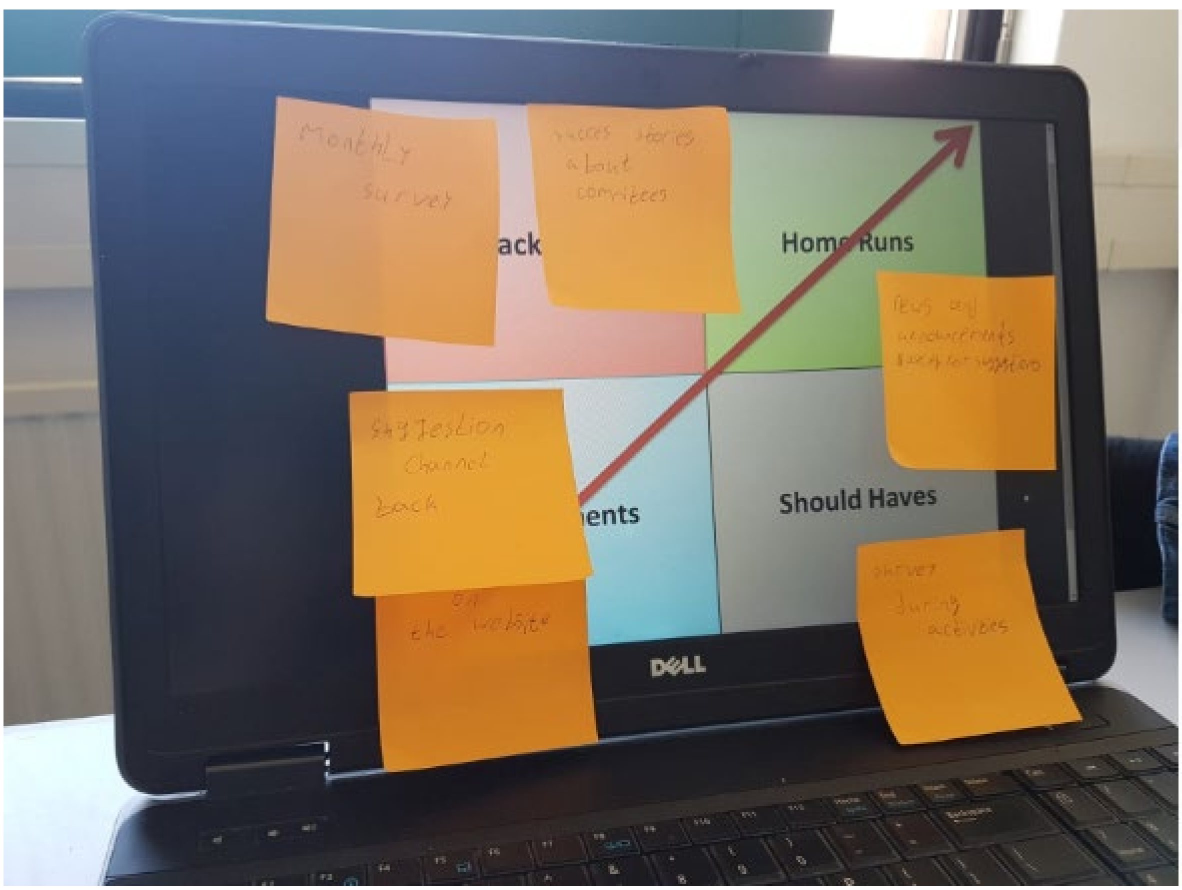
Analyze causes:

After the initial meeting there was already an idea about the root causes. First of all with the responses to the survey present we could see that the problem we are seeing is also a problem that the majority of members experience namely that they are not satisfied with the committees. Furthermore we noticed that there are some outliers in the questions “I feel that I am heard within Blueshell” and “I am comfortable sharing my ideas with Blueshell” this led us to the conclusion that most people do not know that they can show initiative and that this initiative is appreciated.

Generate solutions:

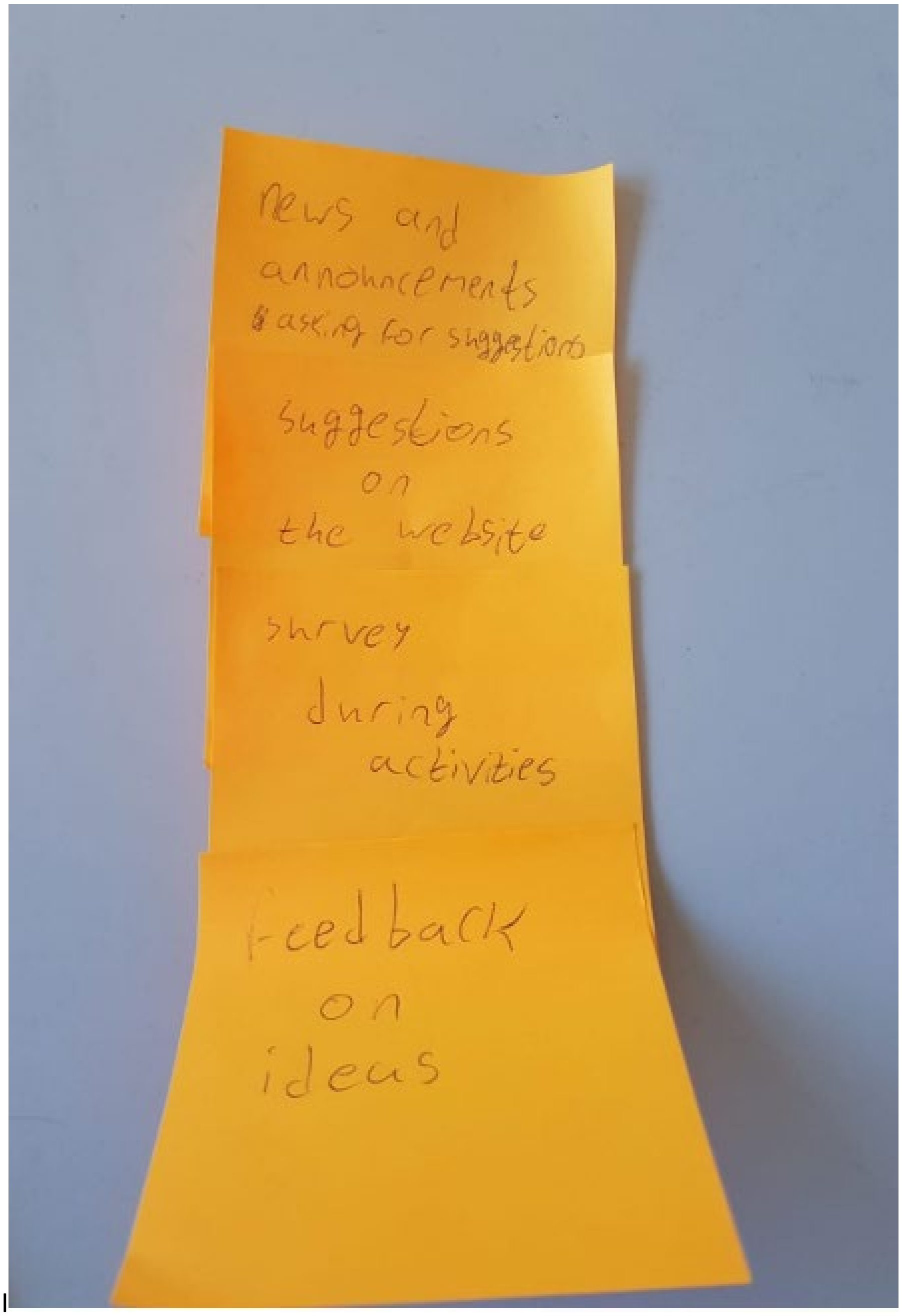
When seeing that most people don’t know that their initiative is valued, we had a brainstorming session about possible solutions and we then placed these solutions on an energy-result graph to see which ones should be implemented. The goal of this graph is determining which solutions are worth implanting. This is determined by, for each problem, seeing how much energy the solution will cost to implement and how much result the solution would gain. The result can be seen in figure 6.

*Figure 6: the solutions on an energy-result graph*




Finally four of these solutions were picked the chosen solutions can be seen in figure 7.

*Figure 7: the chosen solutions*




Realize solutions & Check results:

The realization of the solutions is now up to Blueshell. As mentioned before in this report, I will help Blueshell with these steps but they will not be finished for this report due to time constraints.

**Results**

The results of my personal project was overwhelmingly positive, the board of Blueshell was very content with my consulting. I have also reached my goal of finding a solution to one of the problems of Blueshell. I myself am also satisfied with my work as a consultant since I have the feeling that I learned a lot and solved at least one of the problems within Blueshell.

I feel like I can enrich the literature with everything I have done so far. First of all Kaizen: what I noticed in utilizing the steps is that there is quite a bit of overlap, and not all programs may do the steps in the same order. The model makes it seem very set but the first 3 steps seem to mix in with each other a bit in my experience. Part of measuring the facts for example can be done while defining problems. This might not be intended but it happens, therefore I would say that, although very effective, the Kaizen model does not hold true for every improvement cycle.

When regarding the five times why, this statement basically means asking why five times (or until the root problem is found.) At first this idea seemed odd to me. not only would this not seem like it would get results, it might also annoy the client since you are very repetitively asking why. In practice however I was completely proven wrong. After convincing myself that I should keep asking I noticed that asking why, although worded differently every time, really helped with getting very deep into the problem, this not only made the client think of new points of few but also resulted in a lot of useful insights in the root causes. However the rule describes it slightly wrong, asking “why?” five times in a row will not be efficient since the client does notice this and gets annoyed. Instead variations on the question should be used like for example “where does this come from?” or “How did that happen?” in this case the client will not know that you are repetitively asking the same thing while still going deeper into the problems and the causes.

**Advice to Blueshell**

For Blueshell the biggest advice I could give is to keep using Kaizen in the future, the biggest part of improvement is to keep improving. If they keep cycling through Kaizen they can keep solving their problems in a structured way.

**Learning experience**

During my project I learned a lot.

From the coaching:

During my coaching session I wanted to find more time to do chores like washing up and cleaning my room, since I noticed that during periods in which I had a lot of work I could not find the time for my chores. I knew that with my personal project and my module for my regular studies that my schedule would be very full, this meant that I would probably be neglecting my chores again and I wanted to find a solution to this. With my coach I discussed my timetable and the reasons why I normally cannot find the time to do chores. Our solution was to try and not end my schooldays once I get home in the afternoon but keep working until dinner, this way I would still be in a working mood and therefore would be able to complete my chores. This worked very well, now that I had another timeslot for chores I could get them finished quite successfully, especially since I moved in the period of coaching I was very content. And I have managed to complete my initial goal of completing my chores even in very busy periods.

From the project:

The project was a big learning experience for me, during module 5 we learned how to be a consultant but we focused a lot on how to get a case. In my project I got to experience how the actual consulting works. Not only did I learn a lot of techniques of getting people to think I also learned a lot of techniques for finding and solving problems within an organization. The main weak point that I found for myself in this module is the amount of time I spent. Since I realized too late that we had to start our project I was very short of time, the report and final sessions with Blueshell came very quickly after starting my project and I feel like with more time I would have been able to be more successful. The main learning experience here is start early enough so that you can take your time for the consulting, this will improve the results of the  consulting. Furthermore I learned that consulting is a lot of fun, during module 5 we had to answer the question “do you want to become a consultant?” and in this module I answered “No”, but now that I have the experience of a consultancy job I would not mind to consult for a company or association again.

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# Own your phone

# 14 rules for conscious smartphone usage

## 1. Introduction

In the year 2007 one of the fastest technological revolutions in the history of humanity began to emerge. With the release of Apple's first IPhone, smartphones became available to the wide public. Four years later, already 35% of adults in the United States owned such a device and in 2018 a full 77% of U.S. adults owned a smartphone. These prevalence rates are even higher for the age groups of individuals aged 18-29 and 30-49, with 94% and 89% respectively (Pew Research Center, 2018). These numbers underline how incredibly fast the use of these devices has spread in western societies in general, but especially for the younger generations which grew up in a time in which these devices became popular.

Nowadays, the smartphone is not only a very prevalent phenomenon, but also one that plays a large role within the life of its users. Owners can rely on their pocket-sized computers to make phone calls, talk or chat with distant friends or family (via Skype, WhatsApp and the like), find their way via GPS, take pictures, play games, do their banking on-the-go, check the weather, listen to music, read a book or learn a new language. Considering the wide variety of everyday tasks that this device is able to ease for its users, it should be no surprise then that people use it frequently during their daily lives.

This, in fact, turns out to be true. Statistics indicate that the average U.S. adult checks his or her smartphone 110 times a day on average (Noel, 2017) and spends 2:37 hours using the device, while Germans use their phone on average for 1:37 hours and U.K. adults for 2:09 hours (Armstrong, 2017). The trend for adults in every country was that they tended to use their phone more time in 2016 compared to four years before. Interestingly, for U.S. adults this increase averaged to more than 60 minutes within four years and it has to be expected that the average use will further increase, as more and more useful applications are being invented and refined.

Already in 2013, a survey found that 79% of smartphone users had their device on or near them for all but two hours of the day and 25% of users could not recall a single time of the day in which the phone was not within reach (Stadd, 2013). As much as four in ten people aged 18-24 years reported not being able to disconnect themselves from their phones; not even in vacation (The Wisdom Post, n.d.).

Further research reveals that around three quarters of U.S. adults sleep with the phone by their side (The Wisdom Post, n.d.) and that 42% of them touch their phone within 5 minutes after waking up and 76% within 30 minutes. A similar pattern can be observed at night, when 35% of people touch their phone within 5 minutes and 66% within 30 minutes before going to sleep (Richter, 2017). Not only has research linked smartphone usage at late night to inferior sleep quality, but it has also found that smartphone usage after waking up leads people to focus less on their own thoughts, as they are distracted by being confronted to the outside world immediately (Richter, 2017).

Another study found that 35% of smartphone users think about their smartphone as the first thing in the morning, while only 10% think about their significant other (The Wisdom Post, n.d.).

To say it with Simon Sinek's words: "If you wake up and check your smartphone before you speak to your spouse, then that is an addictive behavior."

## 2. What is the situation and target group I am trying to change?

In the following project I will try to execute change on the individual level, as in my opinion, it is the necessary and crucial antecedent for being able to become a Change Leader who can effectively steer change processes on a societal or organizational level. That is because I believe that in order to help other people change effectively, one should be able to lead by example and be a role-model who has, first of all, undergone significant individual change processes him- or herself and has thereby gained own relevant experiences which can be used to help other people shorten their learning curves.

Speaking about individual change, I will first of all sketch the current situation regarding the use of my smartphone.

Since Christmas Eve of 2014 I own my first smartphone. Over the course of now 3.5 years my smartphone has become my constant companion, as it has for many people, and it has travelled with me to four continents already. I relied on its camera to capture some of the most breathtaking landscapes I have seen, I used its GPS to find my way in the jungle of Indonesia and I made use of its communication applications to stay in touch with friends around the globe. Most importantly, though, I was able to dramatically reduce the effort of finding places to sleep and arranging transportation while travelling the globe.

All in all, I seem to owe many things to the powerful device that I constantly carry around in my right pocket. For example: time. How much time did it save me already to do my banking online instead of in the bank, to order a product online instead of looking for it in the city and to book a hostel online instead of looking for one in an unknown city?

Surprisingly, though, my feelings towards my smartphone are mostly negative.When I think about the device, I tend to be dissatisfied.

I feel that I have become overly dependent of it in my daily life. I also feel that I am using it for more time than I would like to. For example, I can remember few times where I left the house without my smartphone and it seems as if I would be carrying it around in my pocket for almost all the day. I do also not own an alarm clock anymore because my smartphone is responsible for waking me up. Another thing which bugs me is that, sometimes, I get lost for various minutes using certain applications without knowing what and why I am doing it. As the device is one of the first things I see in the morning and one of the last things I see in the evening, I feel like my life revolves too much around this device. This gives rise to a feeling of dissatisfaction which I associate with this device. One such source of dissatisfaction occurs in situations in which I feel obliged to reply to all unread messages on WhatsApp. This gives me the impression that I am very much responding to incoming stimuli on the screen and being less autonomous in using the device as a tool to fulfill certain needs in my daily life, which would otherwise be more difficult to achieve. And autonomy is an important part for me in order to experience fulfillment. Being driven by something rather than driving something is a state in which I am not at my very best.

As described earlier, the adoption of the smartphone has been a highly paced technological revolution. My current state of dissatisfaction about the way I am using the device indicates me that I want to change *something* about it. And that something mostly has to do with the fact that I feel that I have never taken the time to consciously reflect what the device means to me and for the fulfillment of which underlying desires I do and do not want to use it. Considering how fast the smartphone has established itself in society, it is more than necessary in my opinion to take a step back and find an adaptive way to use the device in a way that 1) makes use of the benefits of the phone on the one side, but 2) also takes into account our (or at least my) desire to lead an autonomous life without feeling addicted to the device. In my opinion this change is so urgent because the above described phenomena apply already to large parts of society and especially for people aged 18 to 39, including myself. Moreover, I notice how the large majority of my social environment is prone to most of the abovementioned behaviors. These are also behaviors which would be classified as 'indicative for an addiction' if we were, for instance, talking about substance abuse or chronic gambling.That is why I want to adapt the way in which I use my smartphone. I want to be able to use it in a way which gives me fulfillment again.

## 3. Change Goals

Based on my current state of dissatisfaction, I decided that my change project shall be guided by three major change goals:

1) Before handing in my report, I want to have made a conscious decision for which of my desires I will use the smartphone as a medium.

In order to be able to assess whether goal 1 was achieved, first of all a definition of a conscious decision regarding smartphone use needs to be given. As in my opinion decisions are always to some extent subjective, I decided that it would also make sense to give a subjective definition for what a conscious decision would entail for ME personally. Thus, I established five conditions that should be met (at least) so that my decision-making process could be described as conscious:

1.1) I should be aware of how I currently use my smartphone. This entails how much time I spend on my phone, how often I unlock it and which functions I use.
1.2) I should be aware of the reasons why I currently use my smartphone. This entails which underlying desires I try to fulfill whenever I reach for my phone.
1.3) I should be aware of which underlying desires I would like to have fulfilled in a world without (access to) smartphones.
1.4) I should experience what it would mean to fulfill my desires in ways that do not feature the use of a smartphone.
1.5) I should be aware of how smartphones are able to gain my attention to an extent that it feels hard to resist the urge to use the device.

**2)** Before handing in my report, I want to have created a concrete action plan that is based on the previous decision-making process and which determines my future smartphone use.

**3)** Four weeks after handing in my report, I want to live by the self-created action plan for optimal smartphone usage.

As explained above, I believe that no literature is necessary to determine what a conscious decision would entail for me personally. After all, consciousness is always a subjective state of the person who is experiencing it, so I feel confident in establishing a definition for myself.
In light of my desire to be less dependent on my smartphone I decided to focus on these three change goals because they tackle three important questions (as given below). These questions are also reflected in Greif's extension of the Rubicon Model (2011), which identifies five stages towards bridging the intention-action gap (given in brackets):

1) What do I actually want to change? (-> Goal clarification)
2) How will I go about to change this? (-> Planning & Intention)

3) Am I able to implement the change? (-> Implementation & Fading Out)

Each of the extended Rubicon model's stages will be addressed in this change project.
Another reason for why I chose above mentioned goals is that I believe experiential learning to be very effective. In order to strengthen these experiences I will reflect on them in this report.

## 4. My Change Approach & Methodology

In order to be able to achieve goal 1 I first of all needed to make sure that all five conditions for a conscious decision were met. Therefore, I developed the following change approach:
First, I want to gain insight into how I am currently using my smartphone. Therefore, I decided to track via the application *MyAddictometer* how much time I use my smartphone on average and how many times I unlock my smartphone on a daily basis. In order to obtain reliable and valid data, I opted for a large sample size of n=46 days in which I tracked my phone usage patterns. Furthermore, I want to understand in which way I spend the time on my smartphone. In order to obtain some relevant qualitative data I decided to rely on the application *QualityTime* which tracks for how much time I use each application and how many unlocks I have for each application on my phone, respectively. I will conduct this analysis for n=5 days.
Secondly, I want to explore the reasons and underlying desires that lead me to use my smartphone. In order to find that out, I decided to carry a small DIN-A7 paper block and a pen with me, on which I will write down what the reasons and underlying desires are whenever I reach for my smartphone and unlock it. As a reason I will count the physical activity that I am conducting (e.g.: making a phone call), while the underlying desire focuses on the "*why am I doing this activity?*" (e.g.: to arrange a meet-up). I will conduct this qualitative analysis for 2 days.
Thirdly, I want to experience in which situations I will have the desire to use a smartphone when I do not have one available. In order to do this, I decided to be abstinent from my smartphone for 13 days and to make a note in my block each time when I miss or feel like I need my smartphone. I also decided not to use any of the functions of my laptop that can potentially replace my smartphone.
Fourthly, I want to experience any alternative ways that one has to take when not having a smartphone. Thus, I decided to write down a note each time when I am not able to do something that I would normally do with the smartphone and each time when I have to think of an alternative way of doing something that I usually do with the smartphone.

Lastly, I want to understand why I am experiencing difficulties resisting the temptations of spending time on the smartphone. Therefore, I decided to conduct research into the mechanisms that make my smartphone an addictive property for me.
Taken together, I feel that gaining insight into each of these five aspects will facilitate my ability to make a more conscious decision about how I would like to use my smartphone, because of the new and more detached perspectives that I will gain.
Based on this informed decision I will create an action plan for the future (goal 2). In the third step I will then try to put that plan into practice with help of change management literature and materials from the first five Processes of Change tracks (goal 3).

Summing up, my change project can be divided into the following parts.
First, I will conduct five different measures to gain more insight into my current state of smartphone usage. The goal of these measures is to create the ground on which I can (subjectively seen) take a decision about my future which is more conscious and autonomous than in the past.
Secondly, I will create a specific action plan that encompasses a set of rules that will guide my future smartphone usage in a way that is aligned to addressing my underlying desires in the way that is most fulfilling to me personally.Lastly, I will make use of change management literature and techniques in order to implement the change, which would mean that I would ideally be able to live up to my action plan.

# 5. Results

## 5.1 Paving the ground for being able to make a more conscious decision

For each of the three parts of this project and the respective change goal for each part, I will write a separate results section in which I will also do some analyzing and interpreting to illustrate how the obtained insights in each step contributed to help me make a more conscious decision.

In <u>Step 1</u> towards creating the ground for a conscious and autonomous decision I was interested in understanding how I am currently making use of my smartphone.The evaluation of the screen-time tracking application *MyAddictometer* revealed the following usage patterns:

- Per day I use my phone for 1:42 hours on average.

- Per day I unlock my smartphone 71 times on average.

- I spend 1:26 minutes on average on my phone per unlock.

- My phone usage spreads evenly throughout most parts of the day:
  From 00:00-04:00: 7%
  From 04:00-12:00: 20%
  From 12:00-16:00: 23%
  From 16:00-20:00: 25%
  From 20:00-24:00: 25%

Considering these numbers my smartphone use is around average compared to German adults and probably under-average for my age group. As the last statistic indicates, I use my phone constantly throughout the day which is in line with my feeling that I always have my phone in my immediate proximity.More interestingly, though, is the question in which way I tend to spend these almost 12 hours per week on my smartphone.The evaluation of the mobile use tracking application *QualityTime* unraveled the following usage patterns:

- The three applications which I launched most frequently were:

  1) A messenger application (WhatsApp) - 59% of all launches
  2) A music streaming application (Spotify) - 8% of all launches
  3) The Alarm Clock - 7% of all launches

  The three applications which I used for the most time were:

  1) A messenger application (WhatsApp) - 74% of the time
  2) The Internet Explorer - 9% of the time
  3) A music streaming application (Spotify) - 5% of the time

This data may give insight to some extent into my personal preferences of using the smartphone (yes, no Instagram and Snapchat!). But the takeaway from this qualitative analysis clearly revolves around the predominant use of one messenger app. It is fair to say that the application *WhatsApp* plays the largest role in how I make use of my smartphone. Other noteworthy mentions are the use of the Internet Browser, of a music streaming application and the use of the alarm clock.

- Interestingly the use of the following functions was surprisingly little:

| | | |
|---|---|---|
| Using the Camera | - | 1% of all launches & 0% of the time |
| Making Phone Calls | - | 1% of all launches & 1% of the time |
| Writing SMS | - | 1% of all launches & 0% of the time |

Because screen time tracking applications usually do not count making phone calls into their statistics (after all the screen is mostly locked when making a call) this number is not necessarily very meaningful, however.

That is why my interest was in the actual number of phone calls and SMS that were directed at me personally and not randomly generated by (e.g.) the network provider.

The results were the following:

- On average I have 0.7 phone calls per day.
- On average I have 0.05 SMS per day.

It has to be noted, however, that these numbers also include multiple missed calls (so e.g., five calls were counted when a friend could not reach me and called various times). The actual number of usage points per day is thus expected to be lower than indicated above.All in all, these results show that using SMS and using the phone camera are relatively unimportant for me. Phone calls were somewhat more important for me but also not very prevalent.

The following statistic sums up on which applications I spent the most time per launch:

| | | |
|---|---|---|
| 1) YouTube | - | 3:30 minutes |
| 2) Internet Browser | - | 2:41 minutes |
| 3) WhatsApp | - | 2:07 minutes |

The applications YouTube, Internet Browser and WhatsApp appear to be the one's on which I tend to spend the most time on.

In Step 2 towards a more conscious decision I wondered which underlying desires led me to use my smartphone and to which '*phone behaviors*' these desires translated.
I coded each underlying desire and categorized similar codes into overarching categories. The most common categories of underlying desires which I wanted to fulfill with my phone were:

| | | |
|---|---|---|
| 1) to experience instant gratification | - | 36% of the time |
| 2) to engage in social interactions | - | 30% of the time |
| 3) to plan something | - | 14% of the time |
| 4) to learn or improve something | - | 7% of the time |
| 5) to arrange a meet-up with someone | - | 5% of the time |
| 6) to listen to music | - | 3% of the time |

The desire to experience instant gratification refers to the wish to experience pleasure or fulfillment without delay or deferment. This category consists of the following codes: to experience pleasure, to prevent boredom, to distract myself and to not feel lonely. Interestingly, these desires were the most prevalent determinant for why I am using my phone.

The associated phone behaviors that I performed when I had the desire to experience instant gratification (in descending order) were:

1) Checking whether I would have new or unread messages
2) Not knowing what I am currently doing on my phone
3) Doing whatever to have something to do
4) Checking sports news
5) Beginning to chat with other people

This list of phone behaviors indicates exactly what I am doing in order to experience instant gratification on my phone. Apart from checking messages and sport apps, I often do not know what I am doing on my phone. To me, this is a sign that this is something that I will have to examine more in depth.

My second most common desire (to engage in social interactions) can further be divided into superficial and purposeful interactions, because the associated phone behaviors with them vary decisively.

The phone behaviors that I performed when I had the desire to engage in *superficial* social interactions (in descending order) were:

1) Checking whether I would have new or unread messages
2) Beginning to chat with other people
3) Not knowing what I am currently doing on my phone

In contrast, the phone behaviors that I performed when I had the desire to engage in *meaningful* social interactions (in descending order), were:

1) Writing a text message to someone with a certain purpose
2) Making a phone call
3) Making a Skype call

Summing up, the two most common desires that I wanted to have fulfilled by the means of my phone are experiencing instant gratification and engaging in social interactions. Interestingly, the associated phone behaviors with experiencing instant gratification and engaging in *superficial* social interactions are very similar. The associated phone behaviors for experiencing instant gratification and engaging in *purposeful* social interactions, in contrast, are rather dissimilar.It also becomes apparent that in order to try to experience instant gratification, I am not necessarily aware of what I am doing on my phone. Quite the opposite is true. After checking whether I have any new messages, I often do not know what the reason for my phone use is and I often just do something with it in order to be distracted. These behavioral patterns will be referred to as *leaking interactions* in the following.

In order to find out which types of phone behaviors were motivated by the desire for instant gratification, I examined all phone behaviors that I performed and categorized them into six categories. They are indicated from most to least indicative of the desire for instant gratification:

1) Checking new input (messages/emails)
2) Messaging & Chatting
3) Using the phone in order to have something to do
4) Engaging in leisure activities (music, videos ,..)
5) Engaging in to-do activities (online banking, …)
6) Engaging in verbal communication (phone calls, …)

Then I looked for each of these categories by which underlying desires they were motivated the most:

| | | |
|---|---|---|
| Checking new input | - | Instant gratification & To interact socially |
| Messaging & Chatting | - | To interact socially, Arranging meet-ups & Creating bonds |
| Having something to do | - | Instant gratification |
| Leisure activities | - | Instant gratification & Learning sth. new |
| To-Do activities | - | Planning something |
| Verbal Communication | - | Planning something, Having Purposeful Conversations, Creating social bonds & Arranging meet-ups |

These analyses reveal that most of the time when I am checking for new input on my phone I really just want to experience instant gratification.The same holds true when I am using my smartphone in order to have something to do.Leisure activities that I perform on my phone are partly motivated by instant gratification and partly by the desire to learn something new.I use messaging and chatting as the way to engage with my social environment via phone. This is often relevant in order to arrange meet-ups, create social bonds or to interact socially.Many of the things for which I use the phone as a tool, for example for finding my way via GPS or for calling someone, revolve around being better able to plan something.

Step 3 towards a more conscious decision focused on the question which desires I would have and consider being important during my 13-day phone abstinence.

To begin with, I registered around 8 times more desires to use my smartphone when I still had it available all the time compared to when I did not have it around me. Therefore, it is likely that my extent of usage could be affected by the mere availability of my smartphone. So instead of the saying “You always want what you can’t have”, rather the phrase “Out of sight, out of mind” applies here.

Another finding revolves around how important the fulfillment of certain desires is for me. Many times I encountered desires which I could hardly fulfill without my smartphone (and laptop). For example, I was not able to listen to music on my way to work or I could not quickly take a picture of something that I wanted to show to a friend.However, I actually did not attempt to compensate these desires in any alternative way, because I simply did not consider them to be important enough to put in the extra effort. Sometimes, though, highly important desires emerged that needed to be fulfilled. For example, I needed to find out where an affordable accommodation in an unknown city was so that I would not have to sleep in the park.

Being abstinent from my smartphone therefore provided me with a new perspective onto which possibilities I miss to a high extent when I do not have my smartphone.

Some of the possibilities which I highly missed are:

- Having deep / meaningful conversations (especially with geographically distant friends)
- Planning things (e.g. booking transport / accommodations)
- Learning / Improving something (e.g. researching sth on the internet)

Some possibilities which I missed to medium extent were:

- Creating social bonds (this is also possible without the smartphone, but less so with geographically distant friends).
- Arranging a meet-up (especially as a phone facilitates spontaneity)

Other possibilities I did not miss much. For example:

- Obtaining instant gratification
- Superficial social interactions (e.g. chatting on WhatsApp)
- Listening to music (the phone might not be indispensable for listening to it)

In Step 4 towards a more conscious decision I examined which alternative ways I would take on in order to compensate for the things that I was missing in the absence of my smartphone. At a later stage, these insights can be used to think about whether these alternatives would in fact be fulfilling for me.

Most noticeably, I missed the ability to spontaneously arrange a meet-up with friends. Instead, I would usually show up at a friend's place and ring the bell or throw a little piece of plastic against that friend's window. In turn, some friends simply showed up in front of my house and would do the same.

Surprisingly, this worked pretty well. I missed a friend a few times, but it quickly became practice to leave a piece of paper at each other's place with a note on which would pass on the desired information. Still, I noticed how much easier meeting up has become with the advent of phones and smartphones in particular.I also missed the ability to spontaneously arrange something with another person per phone because I would not know where he or she was at the current moment. In these cases I decided to use phone booths. However, I underestimated how expensive and rare phone booths have become nowadays (0.80€ per first minute, then 0.40€ per minute). When a friend missed my calls from phone booths a few times, I also realized that there was no way for her to call me back as the phone booth operates with an anonymous number.Another alternative measure that I had to take was in finding my way in a new city. I had to ask many people for the way, instead of relying on my maps application. One time, a person even printed me the directions to my destination. So apart from consuming more time, finding my way worked out fine.More difficult was it to meet people with which I had agreed to meet up beforehand, but which I did not know personally, so (e.g.) when I was doing carpooling. One time I almost missed an appointment because I was not able to find the other person in time.It was also difficult to research or book anything online. I could have asked other people to use their devices for a short period of time, but that would not really been an alternative way for living without the smartphone. So, I decided that I could use Internet Café's for these purposes.

For many other things I did not immediately find an alternative way, or I simply was not willing to put in the necessary effort to go that alternative way. Once I was interested in looking up a map of the Caribbean, but instead of going to the library I decided that it was not important enough for me to drive there just to look at a map. Another time I really wanted to know about some sports results, but I knew no one in my immediate surrounding which followed the same events so that I could not ask them. I decided to simply forget about it, but at the next best opportunity I entered a sports betting shop and asked at the front desk if they could look up the result.Most of these things have one thing in common. They would have been achieved in less time if I would have had my smartphone at hand. But would they also have been more fulfilling?

Step 5 towards a more conscious decision-making process revolves around understanding why we currently spend as much time on smartphones. Therefore, I researched both academic and non-academic literature and sources.

First of all, I learned that we as the users of smartphones are not necessarily the ones to blame for why we are so dependent on them. I often wondered: "What is wrong with me? Why am I using this device to an extent that I do not even remember my actual purpose for using it?"

Tristan Harris (who is a former Google Design Ethicist), instead, argues that we need to understand that all major technology companies are in a race for our attention. In order to win that race, application designers attempt to make their products as persuasive as possible to keep us engaged for as long as possible on their platforms. Therefore application designers incorporate psychological mechanisms in order to more effectively capture the user's attention. According to Harris, the reasons for technology companies to do this are simple.

The more time an application is able to capture our attention, the higher the company's revenues through advertisements will be. A company like Facebook, though, has concurrence in the race for the user's attention. Let us assume that Instagram incorporates a psychological mechanism into their platform that effectively persuades their users to spend more time on their platform. Spending more time on Instagram means that we probably have less time to spend on Facebook. Facebook, in turn, feels the urge to be at least equally competitive in the race for our attention, so they incorporate the same mechanism plus they look into more options to get us hooked on their platform even more. At the current moment, we are already deep down a road leading to a vicious cycle, in which every platform tries to get as much of our time and attention as possible.

What we need to acknowledge, according to Harris, is that we as humans are persuadable. We as students of the Processes of Change class should already be aware of this fact after giving persuasive speeches ourselves as part of module 2.Once we remember how easily we can be tricked into doing something that others want from us, it should come less as a surprise to us why we find social media applications hard to resist.

But how do applications like WhatsApp or Facebook actually hook us? Why are we susceptible to these applications?

In order to answer these questions we have to get acquainted to dopamine. Dopamine is a brain chemical and neurotransmitter which sends information signals from one brain neuron to another other brain neurons (Hussein, 2018).

Dopamine is often described as a pleasure or reward hormone. It is theorized that small bursts of dopamine in the brain serve as a reward for us and have pleasurable effects. More recent research, however, found that dopamine is less about pleasure but more about the anticipation of pleasure. So rather than being about happiness itself, it is more about the pursuit of happiness (FORA.tv, 2011). In order to get a certain reward, three steps occur. First we get a signal that there might be a potential reward for us, then we have to put in work to obtain the reward and ultimately we get the reward.

Interestingly, dopamine levels peaked when we obtained the signal for a potential reward and they were low again when the reward was actually obtained (FORA.tv, 2011).

Research revealed more interesting findings in this respect. In an experiment in which pigeons would be rewarded with food for picking on a certain lever, an interesting phenomenon occurred. What the researchers found was that the pigeons' dopamine levels increased drastically the more uncertain their reward was. In the most uncertain of all cases, a 50-50 chance, dopamine levels rose up to 400%, which is slightly less than when one consumes cocaine (Big Think, 2017).

Considering that releasing dopamine elicits feelings of pleasure, it becomes understandable why we seek it so much. And as we have seen before, it is important for motivating us and making us more focused so that we can perform better. In daily life it is frequently released when we eat, have sex or make a new experience. Evolutionary seen, this makes sense. Without dopamine humans would have probably been unmotivated to survive.

The downside is that its releases can also become incredibly addicting which is for example the case with many drugs that elicit large dopamine releases in the brain.

Other research showed that slot machines make people addicted to gambling three to four times faster than other casino games (Schüll, 2012). This is because they operate on variable schedule rewards, which means that you pull a lever and sometimes you get a reward and sometimes you do not (Harris, 2016). Pulling the lever gives you an illusion of control while the unpredictability gives you the dopamine kicks that elicit feelings of pleasure that keep you engaged. As the pigeon experiment shows, the more random and variable the rewards are the more dopamine is released in the brain. And, thus, the more addicting it becomes. These variable schedule rewards elicit consistently high rates of responding, which outperforms all other schedules of reinforcement (ByPass Publishing, 2013).

Being in a race for the user's attention, would not it be smart for technology companies to include variable schedule rewards into applications like Facebook or WhatsApp?

It turns out that the incorporation of variable schedule rewards has also drastically increased the addictiveness of various applications on our smartphones. When we hear the notification sounds of our phones we are gambling to see what we got. Whenever we pull to refresh our emails we play a slot machine to see what we got. Whenever we swipe down the Instagram feed we are playing a slot machine to see what photo comes next (Harris, 2016).

We are not aware that what we are doing all the time with our smartphones is essentially no different from gambling. We gamble and the anticipation of a reward releases dopamine which makes us feel pleasure. And when we do not actually get the reward that we are seeking, then we simply gamble again. So we scroll down more and more to find that next interesting piece of information on the Facebook news feed (the reward). The rewards we are seeking might differ to some extent for each person, but I suspect that overlap exists for most natural human needs. After all, our brains are hard-wired to seek social acceptance, to belong to a group and to make new experiences.

There exist three types of variable rewards and the fact that all of them are integrated in our smartphones underlines the persuasive power of our devices.

First, so called rewards of the tribe are things that come from other people and make us feel good, like for example a like on our Instagram picture. Secondly, rewards of the hunt refer to our primal search for material possessions and food. Exemplary of these kind of rewards are looking for the next interesting piece of information on a news feed or to keep scrolling on Amazon to find exactly what we seek. Lastly, rewards of the self are things that neither come from other people nor are material possessions. These rewards are intrinsically pleasurable and are about the search for mastery, control and competence (Nir Eyal, 2016). On the smartphone such rewards feature checking emails, finishing to-do lists or answering to WhatsApp messages that pop up and disturb our tidy home screen. What makes all these rewards more addictive, once again, is their unpredictability or the so-called "Magic of Maybe".

This effect is even reinforced the less work we have to put in to get the rewards. That is why the simple act of moving one finger to scroll down on your smartphone is as effective.

There are more mechanisms to keep us engaged.It is no coincidence for example that the alert signs for having a Facebook or WhatsApp notification are red (Haubursin, 2018.). Eye tracking tests showed that people's attention gravitated around warm colors like bright red. For this reason Instagram, Google and Airbnb changed their logos towards having brighter colors. It is also no coincidence that slot machines are bright and colored.

Another mechanism revolves around push notifications. Many platforms act like an intermediary to create push notifications for users that do not stem directly from other people (Centre for Human Technology, n.d.). For example, upon being abstinent from my phone I had 21 notifications on Facebook out of which only two stemmed directly from friends. The rest featured messages like: "XY has posted something on group Z". Also WhatsApp has started to created similar notifications saying "Check WhatsApp, you could have unread messages". By creating more notifications these platforms try to gain more of our attention.

The actual function of the apps does further contribute to our usage patterns. In moments of solitude or loneliness social media provides an easy and effective opportunity to engage with one's social world and to escape one's negative feelings. The same holds true for boredom, as the many opportunities which the smartphone encompasses do easily distract away from the bored state.

Another effective strategy to hook the user's attention is the inclusion of infinite scrolling in applications like Facebook or the autoplay-function on YouTube. Research shows that people rely more on visual cues than on internal cues to stop consuming something, which is why these functions reduce the user's sense of control about the amount of usage time (Haubursin, 2018). A study showed that people eating out of a self-filling bowl ate 73% more soup than people who ate out of normal bowls (Wansink, Painter & North, 2005). However, the people who ate more soup were not more satisfied than the people who ate less. This indicates that even though we might consume more interesting information on YouTube, it might not fulfill us more. It also means that a visual cue like an endpoint is better in telling people when to stop than their own sense of satisfaction.

While there might be many more ways and mechanisms in which we are drawn to our smartphones, it may be useful to consider the following perspective on things.Software developers are not evil persons that want to control our lives by hooking us to our smartphones. Rather, they have done their homework and learned the basic principles of behavioral and cognitive psychology and created products that are tailor-made persuaders for the human mind. I honestly marvel at how humans were able to create such small devices that were able to conquer the world in just about ten years and which steer how more than two billion people on earth think and spend their time.However, the goals of the software developers are not necessarily aligned to the general public's goals (or at least my goal to be an autonomous person). As mentioned before, technology companies are stuck in a race for profit and therefore for our attention. That is why our news feeds are mostly full of things which outrage us, shock us or fear us. Ultimately these things capture most of our attention.Thus, all in all, it might be useful to consider many of the smartphone's functions as purposefully constructed to attract and maintain the attention of the human mind.

Now, the only question that remains is:

What can I do to make use of the smartphone's far-reaching benefits without being hooked to the device in a way that makes me unhappy in the long run?

### 5.2 Creating an action plan for optimal smartphone usage

In order to follow up on this question I first of all took a look at the insights gained in Part 1 of this project. Then, I engaged in a process of thinking and also discussing ideas with my PoC coach and with friends. I also researched the internet and let myself inspire from everyday events.

As a result I developed the following reasoning, which led to *Seven Technical Laws for Optimal Smartphone Use* as well as *Seven Behavioral Laws for Optimal Smartphone Use*.

These are the seven technical fixes that I came up with for my smartphone:

**T 1**) *Remove opportunities to engage in infinite scrolling as much as possible*.

In Part 1 of this project I found out that the second and third most prevalent phone behavior associated with experiencing instant gratification were *not knowing what I am currently doing on my phone* and *doing whatever to have something to do*. Both behaviors are indicative for the notion that I use my phone in an unconscious manner and not as an effective tool to make daily life easier.I often notice that I lose track of what my purpose for using the phone is. This is especially the case in moments when I engage in infinite scrolling. In my case this often occurs on applications like WhatsApp, emails, Facebook or the Internet Browser.
As visual cues like an endpoint have proven to be more effective in telling people when to stop than their own sense of satisfaction, I decided to remove infinite scrolling opportunities on my smartphone. I decided to clear my WhatsApp chat history every Sunday evening so that the chats layer does not allow me to scroll down through archived chats. I also think that this step could help me to live more in the now and be less reminiscent of past days. As a way to retain pictures that have been sent via WhatsApp, I opted to use a hard drive where I can save them.Furthermore, I decided to uninstall my email applications because it is sufficient for me to check them every once in a while, on my laptop.For handling Facebook better, I found an application called *News Feed Eradicator for Facebook*. This app replaces the Facebook news feed with inspirational quotes so that Facebook can be used for purposeful actions like staying in contact with friends abroad instead of getting lost in infinite scrolling on the news feed.

**T 2)***The smartphone shall be grayscaled*.

As described above people's attention is easily captured by warm colors like red. Therefore I decided to remove these shiny colors from my phone as a means to reduce some of the smartphone's addictiveness.

**T 3)***The home screen shall consist of in-the-moment tools only*.

Another measure that I decided to take is to reduce the temptation to spend much time on my smartphone. That is why I removed all applications from my home screen (the first page that appears after unlocking the phone) which do not classify as in-the-moment tools. In-the-moment tools are for example the Maps application, the Calendar application, the Time & Alarm Clock applications, the Calculator application or the Phone Call application, because they serve a specific daily life purpose and nothing beyond that.By limiting the home screen to everyday tools, I am more likely to stay in the moment and to avoid drifting into some leaking interaction.My Android smartphone already has a built-in “easy home screen”-option, presumably for elderly people who are not as familiar with smartphones. It also does the work, however, to reduce the addictiveness of our smartphones.

**T 4)***The most frequently used applications shall only be launched in a way that requires multiple seconds, so that each launch can be reflected on more consciously*.

As leaking interactions are so prevalent, I decided to not only remove applications like WhatsApp from my home screen but also to intentionally hide them in some folder so that they are not easily accessible anymore. In order to launch WhatsApp, for example, I would now have to make use of the “Search Bar” and type out the name of the app or to go into my menu and click on “More applications” and search for the app. Through this process I am able to gain a few extra seconds in which I can reflect on whether I really want to use the app or whether I want to seek some type of instant gratification.

**T 5)** *All push-notifications should be turned off except for when they immediately come from other humans. (Notifications from messenger apps shall be displayed every four hours only*.)

In order to reduce the amount of attention that I dedicate to my phone due to receiving push notifications, I decided to forbid all push notifications which do not stem immediately from other humans. Considering that I already removed my email applications as part of rule 3, the only notifications that my phone is now allowed to send me revolve around missed phone calls and WhatsApp messages. For WhatsApp I also decided that I only want to hear the vibration sound for personal messages and not for group chat messages.
The reasoning behind receiving WhatsApp notifications every four hours is that research has shown that bundling notifications reduces the user’s stress, as the user does not feel accessible or responsible to reply 24/7 anymore. All in all, by focusing on human notifications only the overwhelming amount of stimuli on the screen is reduced.

**T 6)***My WhatsApp time shall be limited to 30 minutes per day*.

The reasoning behind restricting my available time on WhatsApp is the following. WhatsApp is by far my most used application and I want to spend less time on the app for superficial interactions or chatting. By restricting the available time I will be forced to prioritize for which activities I want to use the app and for which I do not. It is expected that as a result I will use the app for more purposeful or goal-directed interactions.

The application *AppDetox* automatically blocks WhatsApp as soon as I use it for more than 30 minutes a day. The number of 30 minutes was arbitrarily set by me because it seemed to be a reasonable amount of time in order to be able to engage in a number of important social interactions, while at the same time it would make me feel the pressure to consciously decide for which activities I want to use the application.

**T 7)***I will buy a "dumb phone" for when I think I need to make calls in everyday life.*

As I noticed in the absence of my smartphone, I highly missed the ability to be able to spontaneously arrange a meet-up with friends. In order to be able to do that without violating some of the behavioral laws for optimal smartphone usage, I decided to buy a "dumb phone" which is only able to do phone calls and write SMS; nothing else. A phone such as the AIEK X6 is limited to making calls and sending SMS and it has only the size of a credit card. It is relatively inexpensive (around 15€), it only weighs 28 grams and it has a significantly lower radiation than normal smartphones (only 0.82w/kg instead of 2.1w/kg). It does neither feature the internet or any other distractions such as games. Nonetheless, it has a speaking time of three hours and a stand-by time of up to five days.Therefore, this phone should be ideally suited to be my new non-distracting every day device.

In the following I will illustrate the seven behavioral fixes that I will have to perform in order to be less dependent on my smartphone:

**B 1)***The smartphone shall be forbidden from the room in which I sleep.*

In this way the smartphone will neither be the first thing in the morning nor the last thing in the evening that I use. This might lead to better sleep and reduce the priming effects that typically occur in the mornings when the responding to smartphone notifications induces one into a more passive and responsive mode instead of a mode that emphasizes to pro-actively take on things. Instead of responding to the stimuli on my phone, I could for example develop a habit to do my bed in order to give me a sense of autonomy and pro-activity.Another consequence of this rule is that I will no longer be able to use my smartphone as my alarm clock. Thus, I opted to use the alarm function of an old wrist watch that I have.

**B 2)** *The smartphone shall only be carried from A to B and not from A to A.*

Considering that I use my smartphone for less than one fourth of the time for activities other than texting on WhatsApp in my daily routine life, I decided that it would not be a significant loss for me to leave my smartphone at home in daily life. Daily life for me entails situations in which I return to the same place in the evening where I woke up and left my phone in the morning (A to A).For the few times that I actually receive a call or need to call someone myself, there exist three options:

1) I ask someone to borrow their phone for a minute or I use a phone booth,
2) I use my "dumb phone" who can only text and call or
3) I simply wait until I can access my phone in the evening.

For travelling from one place to another (A to B) I will carry my smartphone with me, because I can make good use of its navigation, accommodation or transportation applications.In order to create social bonds via texting on WhatsApp, however, I do not see the necessity to carry my smartphone around with me all day long. After all, it is mostly common practice to reply to many messages after a few hours anyway. So not being able to answer messages immediately would not make a big difference and I could take my time in the evening to reply to them purposefully.

**B 3)***The smartphone shall be banned from trouser pockets*.

This rule was established due to two reasons.To begin with, carrying the smartphone in the trouser pockets means carrying it almost constantly in close proximity to important organs. In the absence of reliable long-term studies at the present day about the potential health risk through radiation, it is the safer option not to carry the phone in the trouser pockets. Instead, the smartphone could be carried in a backpack or a hand bag. If no bag is available, it could be useful to invest 19.95 € to buy a so called *ProtectUs* trouser pocket patch, which prevents the radiation from affecting nearby organs but at the same time still allows phone connectivity. Another option is to pay attention when buying the smartphone to how much radiation it emits. For example, above mentioned "dumb phone" emits 2.5 times less radiation than a smartphone.

The second reason for this rule is that the mere availability of the smartphone has shown to give rise to eight times more desires for me to use the smartphone compared to when I did not have it. Placing the smartphone in the backpack for example reduces the factor of immediate availability, because we have to put the backpack down, open it, look for the phone and pull it out instead of simply reaching into our trouser pockets.

**B 4)***The smartphone shall only be used when I am not doing anything else at the same time*.

This rule is less about reducing the addictiveness of the device but to facilitate the fulfillment that we are able to obtain with help of the device.
By avoiding multi-tasking it is (e.g.) possible to respond more purposefully to incoming messages. Apart from that, it is also a sign of respect to other people not to use the smartphone when being around them, as it shows that no other communication or activity has more importance than the one currently occurring.

**B 5)***Per each unlock of the smartphone, the device shall only be used for the single activity that I intended to use it for*.

On the one side using the phone for only one thing per unlock decreases the risk of leaking interactions. On the other hand it also raises the user's awareness regarding why the smartphone shall be used in the current situation at all, because using the smartphone only for that one specific purpose requires thinking about what purpose the smartphone is going to be used for during the upcoming unlock in the first place.

**B 6)***Makephone calls instead of waiting for a message reply when something important needs to be discussed. When chatting, use voice messages instead of text messages.*

Making a phone call to discuss any important issue is not only a much faster option than doing the same thing via texting, but it also reduces the risk of being misunderstood. That is because it is much easier to misinterpret text messages than phone calls, because they lack some of the verbal conversation cues that can be transmitted in a phone call.When it is not necessary to settle an important issue straight away and when one feels more like chatting, it is still useful to use voice messages if possible over text messages. After all, making a voice message allows one to say more in a lesser amount of time and it reduces the risk of being misunderstood, which is a useful benefit for any relationship or friendship.

**B 7)***Practice meditation for half an hour six days a week.*

I examined the underlying desires for using my smartphone (in Part 1) and decided that I want to continue using the smartphone as my tool to fulfill the following desires:

- To create or maintain social bonds
- To have meaningful or deep conversations
- To arrange meet-ups

- For planning things
- For learning or improving things

In contrast, I noticed that I want to take on an alternative pathway to deal with my underlying desires to experience pleasure, prevent boredom and to distract myself from unpleasant activities in real life (these desires all pertain to the category ‘experiencing instant gratification’).In order to be able to deal in a better way with my desire for instant gratification, I decided to start practicing meditation for half an hour a day because after all, I expect all of these rules to reduce my daily smartphone usage to an extent that would give me at least half an hour more time per day.

Mindfulness meditation is all about learning to be aware of what you experience via your senses. It also helps you learn understand how the mind creates thoughts and that these thoughts are often aimed to trick us into sources of instant gratification. Meditation helps you let go of these urges to give into sources of instant gratification, as it is about observing the mind and thereby learning to understand that thoughts are not facts. Therefore, meditation helps us to understand that it is natural that our minds are trying to seek instant gratification and it is a tool to resist the urge to always seek the next boost of dopamine.

**5.3 Executing the action plan for optimal smartphone usage**

Having raised awareness for my smartphone usage and created an action plan to optimize my smartphone usage, the only change goal that remains to be achieved is the effective implementation of the rules that I created for myself.In order to implement them in a manner that leads to permanent and effective change I relied on change management literature to facilitate my change process.

One thing Siegfried Greif taught us as part of the Processes of Change – Module 2 was the power of superimposing cues as part of the change process. He gave us the example of placing sport shoes right next to the bed so that in the morning one would immediately be remembered that one wanted to go jogging first thing in the morning.

For my project I decided that superimposing cues would be most relevant for goals B5 (only one activity per unlock), B6 (make phone calls if something needs to be arranged) and B7 (practice meditation). I chose these three goals because I notice that they tend to be the ones which I most easily forget about. In order to be reminded of goals B5 and B6, I decided to create signs that stand for each goal and that I will see each time on the unlock screen before I am able to access my home screen.

For B7 I chose to place my Yoga mattress right next to my bed so that it reminds me each morning that I want to practice meditation.

A study by Gail Matthews at Dominican University also showed that people who wrote down their goals were significantly more likely to achieve their goals than people who did not write them down (Feinstein, 2014). Thus, I opted to create a DIN-A3 poster on which I wrote down all seven behavioral change goals for optimal smartphone usage in a graphically nice fashion. After all, the seven technical fixes did not have to be included because they do not require constant monitoring as they only have to be performed once in the beginning.

Ultimately I relied on more of Greif's suggestions, namely the phases *implementation intention* and *accompany implementation* of the extended Rubicon model (2011).Implementation intention refers to the act of creating a firm intention of what exactly shall be achieved. As I consider goal B7 to be the most difficult goal for me, I decided to create an implementation intention for this goal. This implementation intention entails the very specific goal and takes into account how exactly I will react if some potential interference emerges that could threaten the achievement of my goal.

I thus wrote down for myself:

- "From tomorrow morning on, I will practice meditation for 30 minutes after waking up and before having breakfast."
- "In case that I oversleep, I will remain calm and practice the meditation in the last 30 minutes before going to sleep."
- "In case that I experience frustration because I find meditation difficult, I will remember that it is normal for people that they experience difficulties in calming the voice of their minds in the beginning. I will take a deep breath and continue."

These examples illustrate in which way I already address the possible excuses that could possibly pop up during the implementation phase. By creating an action plan of how to deal with these difficulties, I have no excuse anymore to quit the execution due to "unforeseen conditions".

Lastly, I will implement the accompany implementation. This means that I will create reminders that will ask me whether I am still following the rules after a while. These reminders will take the form of being calendar reminders on my phone that pop up each night at 8pm. I also asked a friend to constantly send me messages that ask me whether I am still living up to my goals and to call me at times to hear how things are going. These two implementation accompaniments will push me to actually achieve my goals.

## 6. Effectiveness of the Change Project

After implementing my self-created action plan for 30 days I was able to observe already a significantly different pattern of phone usage as evidenced by the following numerical data (in brackets my previous usage patterns are given).

- Average Screen Time per Day: 00:38 hours - (01:41 hours)
- Average Screen Time per Week: 04:27 hours - (11:52 hours)
- Average amount of Unlocks per Day: 28 unlocks - (71 unlocks)
- Average Screen Time per Unlock: 01:22 minutes - (01:26 minutes)

Even though a sample of 30 days is not large enough to draw very meaningful conclusions, I am very satisfied with the short-term results of my change project. I was able to decrease my screen time by 63%, which equals seven and a half hours more free time per week. It is interesting to see that my average screen time per unlock has not decreased significantly, but what has changed is that I unlock my phone on 61% fewer occasions than before.
Summing up, the effect of this change intervention has (as of now) by far exceeded my expectations in a positive manner.

## 7. My learning experiences

One thing I learned from executing this change project was that it helped me very much having to write a report about my change project until a certain deadline.
To begin with, the act of writing up what I am doing helped me to structure the multitude of thoughts and ideas in my mind into a tangible and executable project. By writing down my intended approach I noticed at some points that I would benefit from narrowing the project down. I have a high personal interest in executing more change projects like this one in the future. That is why this insight can be useful for me. It shows me that my whole approach and project might be more efficient and thought-through as soon as I put my thoughts onto paper and examine them in a more explicit fashion.
The fact that the report had to be written down until a certain deadline helped me to actually get started with my change project. While I am often able to develop innovative and potentially effective change approaches in my mind, it is helpful for me to have a deadline in mind which actually gives me a reason to start immediately to execute my project. This execution phase sometimes gets lost in personal change projects of mine, just because I do not feel the pressure to deliver an end product in the foreseeable future.
So my takeaway basically is:
Create yourself some kind of “pressure to deliver” and write down your projects as a means to help structure and narrow down your thoughts. A report about a change project is also a good starting point or point of inspiration for future change projects.
Something very important during the course of my change project was to engage in regular discussions about the project with my coach and other friends and family members. In this way I was able to decide

on this exact topic for my change project, while in the beginning I was aiming to execute an even broader project.These fruitful interactions with my coach and some friends often served as a source of inspiration as well as motivation for me. All in all, I have to say that feedback and discussions were the things from which I profited the most during this project as I was able to gain new perspectives on what I was examining.Here, my takeaway is: I will not always have a coach for my future change projects. But by regularly engaging people from my social environment into discussion about the topic at hand, I can certainly also be able to gain important insights which I would miss otherwise.

A very relevant aspect in the change process was to do extensive research on the topic. This was useful in many ways. Firstly, I did not have to come up with every idea myself as I could let myself inspire from other change approaches regarding the same topic. Secondly, I was able to generate much new knowledge about the topic at hand which helped me to determine on which change goals I actually want to focus. A drawback was that sometimes I would find so many interesting paths to potentially follow that I sometimes lost track of time while researching.

Looking back there are few things which I would have done differently.

One example is that I could have started at an earlier point to write down my thoughts so I would have noticed at an earlier stage that I would have to narrow my thoughts down a bit more. Another aspect revolves around my high motivation to execute this project. When being as motivated to engage in a project I often have a tendency of wanting to do too much and I am acting in quite a perfectionist manner. In these moments I would benefit from making more use of the 80/20 principle, which states that 80% of the task can be accomplished in 20% of the time while the remaining 20% of the task might take much more time, in turn. Therefore, I would like to work more efficiently in the future.

## 8. Which type of change leader am I?

As various personality tests found (e.g. Insights Discovery, HEXACO) I am more an extroverted than an introverted person and I am more a thinking-type than a feeling-type person.

The Insights Discovery test categorized me as a so-called Director. Directors tend to rely on logic to solve problems, they desire freedom in what they do and are individualistic. They are also forward-looking, competitive and have a need for ‘important’, new or stimulating assignments for which they are willing to put in tremendous amounts of energy to make things happen. Directors tend to judge others by their ability to get the task done and directors would be more effective with more patience, humility and people concern (robpurfieldinsights.com).

I certainly see some overlap from that description to myself as a change leader. For example, I employ a very logical and cognitive approach to change and I am in fact an independent person who seeks much freedom and stimulating projects. As mentioned before, I also tend to invest high amounts of energy in order to make things happen.

In order to execute individual change projects, this approach works fine for me.As a change leader for others, however, I certainly feel the need to make more use of my interpersonal skills. That is because I have noticed that my cognitive and ‘I-am-leading-the-way’ approach to change is more effective for thinking-type people than for feeling-type people. In order to be able to steer change processes more effectively for all kinds of people I want to develop my ability to be also more of a supporter for people that do not require a director as leader.

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Honours
Processes of Change

# Maturing The DesignLab

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# Contents

## Introduction

In present-day society, successful organisations must be designed for speed, agility, and adaptability to be able to compete in the present global business environment ("The organization of the future: Arriving now," 2017). Ever increasing growth rates are required for organisations in order to maintain a competitive advantage these days (Kemp & Verhoeven, 2002).

But irrespective of the growth rate of an organisation or the type of organisation, many organisations go through the same process of maturing. This process of organisational growth can be approached from different perspectives. Different models for the growth of organisations map the growth process of an organisation in a different way, for example the Greiner Growth Model(Greiner, 1972), which is widely used for strategic management, uses the perspective of a living organism to approach the growth of an organisation.

In this report, the People Capability Maturity Model (P-CMM) (Curtis, Hefley, & Miller, 2009) is used as a theoretical fundament for the design of a change process in a growing organisation. The P-CMM provides a description of the processes which a maturing organisation undergoes together with the challenges that are faced by maturing organisations. P-CMM also paves the way for creating an agile workforce in an organisation.

The DesignLab, a young, dynamic organisation that is part of the University of Twente (UT), is such a maturing organisation which can benefit from creating an agile workforce for the purpose of increasing its value for the UT.

This report delves deeper into the change process of maturing the DesignLab to an organisation of continuous improvement and creating an organisation that can independently mature further. Based on the organisational analysis of the DesignLab using the P-CMM, a suitable change approach for the DesignLab is come up with. Subsequently, over the course of seven weeks, the proposed changes are implemented and, finally, evaluated on their effectivity for the maturing process.

## Situation Sketch

The DesignLab is an organisation that is part of the University of Twente. It aims to 'realize new connections between university and society, by linking academic research and education to societal issues and challenges.'(DesignLab, 2018) The DesignLab tries to fulfil this aim through a wide variety of activities such as: facilitating students to work on projects, hosting events of both internal members and external partners, and giving researchers the opportunity to work in a transdisciplinary research area. All the activities that are carried out in the DesignLab have to be multidisciplinary and societally relevant.

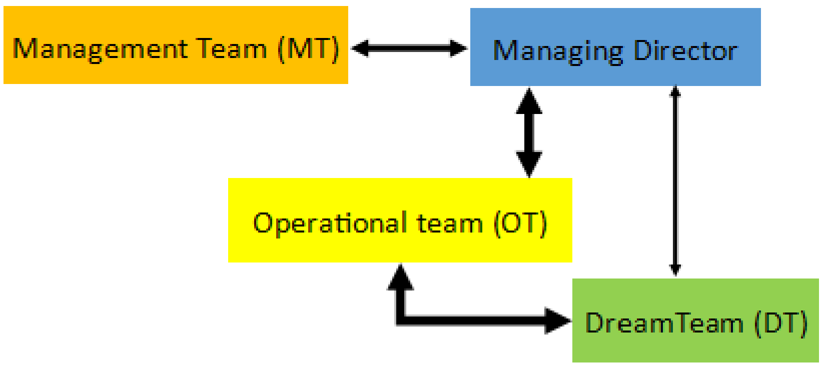


*Figure 1: The organisational structure of the DesignLab excluding actors such as the research fellows, university innovation fellows, etc. The thickness of the connections indicates the strength of the bond between the actors.*

The organisational structure of the DesignLab is shown in Figure 1. The DesignLab is managed by a managing director together with a management team. The managing director of the DesignLab is in close contact with the management team and the operational team. The latter consists of 10 employees which carry out all daily activities in the DesignLab. Also, the DreamTeam (DT), a group of approximately 35 students, helps with the daily operations of the DesignLab and works separately on projects as part of the organisation. The DT is managed by a member of the operational team.

As an organisation, the DesignLab has shown tremendous growth since it was founded in 2014. Over 2017 it has hosted 114 events, engaged in 339 research-related activities, and educated over a 1000 students in its workshops (DesignLab, 2017). Despite that this enormous growth since the opening of the DesignLab is welcomed, it has also brought along organisational challenges that pressurize the organisation of the DesignLab.

After several meetings with various employees of the DesignLab that are part of the DreamTeam and the operational team, multiple present organisational challenges have become clear. The following organisational challenges are experienced in the DesignLab by the members of the operational team:

- Lack of ownership of the organisation in the DreamTeam. The 'family' atmosphere that was present in the past is now fading away, due to the on-going growth of the organisation. As a result, the members of DT do not feel a close connection with the DesignLab as an organisation.
- A large part of the operational team experiences a high workload resulting in overwork and employees being behind on their work. This work overload is tried to be, partly, resolved as, recently, three new members (first-line support, projects, secretary) have been added to the operational team.
- The members of the operational team lack an overview of the capacity of the complete team.
- The task division over the members of the operational team is unclear. Members of both the operational team and the DreamTeam do not know where to go to for certain tasks.
- Newer members of the operational team are not familiar with all facets of the organisation.
- The operational team is hardly updated on the activities of the management team of the organisation.
- The growth of the DesignLab causes friction with the present idea of an ideal organisation which is flexible, dynamic, and fun. The growing need of the employees of the DesignLab for more structured and standardized processes is, partly, disregarded due to the fear of becoming a bureaucratic organisation.
- The vision of the DesignLab is considered vague and unambiguous, it does not work as a guideline for the employees in choosing what direction to go to. The vision is incredibly broad, yielding a situation in which almost all requests for projects and events are accepted because they fit the requirements. This causes a work overload for the operational team and prioritization of projects and events is hard.

  Besides the work overload that is created, profiling of the DesignLab to external parties becomes significantly more difficult as there is such a wide variety of activities in the DesignLab.

The occurrence of these organisational challenges in the DesignLab is perfectly understandable in the light of the DesignLab as a maturing organisation. The aforementioned challenges are not bound to the DesignLab but are present in many young, fast-growing organisations. The processes which a maturing organisation undergoes and the organisational challenges that are faced by maturing

organisations are accurately described in the People Capability Maturity Model (P-CMM) (Curtis et al., 2009). The present organisational challenges of the DesignLab match closely to characteristics of companies in two maturity levels as described in the P-CMM.
With the notion that the observed organisational challenges are originating from the process of maturing, it is chosen not to try to solve one of the challenges, but to give the DesignLab the tools to solve these challenges themselves by helping the DesignLab to further *mature.* The section Change Approach elaborates on the approach to the change process.

## P-CMM Analysis

The information retrieved from the numerous interviews that were arranged with the employees of the operational team, is used to determine the maturity level of the DesignLab in the P-CMM. The DesignLab shows signs of maturity level 3 and 4. This section elaborates on the maturity of the DesignLab according to the P-CMM.
P-CMM is used for this analysis because it is a useful tool for addressing critical issues with regard to the people and the process in a maturing organisation.

### Maturity Level 3 – The Defined Level

The organisation of the DesignLab majorly belongs to maturity level 3. The organisation has matured further than maturity level 2 as basic people management practices, for example performance management, have been taking place for a while already. Besides, the DesignLab already has established a workforce, i.e. the operational team, which consists of people that have the skills needed to perform their assigned work. These factors indicate that the DesignLab has matured beyond maturity level 2.

For the DesignLab, it can be helpful for further growth to build an organisation-wide framework of the workforce competencies in order to solve two earlier mentioned organisational challenges: the missing overview of the capacity of the operational team and the unawareness of the tasks that are carried out by various members of the operational team. Solving these organisational challenges also contributes to reducing the workload once an overview of the available and required capacity is created.
Another part of the maturing process in maturity level 3 is adapting the workforce to the organisational strategy and the objectives. This is currently taking place in the DesignLab, as new employees have been attracted and positioned strategically.
The DesignLab already manages to show the employees how one's activity contribute to the objectives of the organisation, which is an important component of maturity level 3.
At present, the DesignLab can benefit from better defining the processes of the operational team. With clearly defined processes, coordination within the operational team is simplified, since the team members do not have to figure out how to manage their mutual dependencies anymore.
By resolving the aforementioned challenges, the DesignLab can progress to the fourth maturity level.

### Maturity Level 4 – The Predictable Level

Maturity level 4 is characterized by management of the capability and performance of the operational team in a quantitative fashion. In this way, the organisation can effectively exploit the capability created by the framework of workforce competencies. By quantifying performance, management can give more responsibility to the operational team and has more time to empower the workforce.
Although the DesignLab does not quantify performance and capacity, already a lot of freedom and responsibilities are given to the operational team. The managing director uses a strategy in which an employee only has to ask for advice on a decision from the stakeholders that are affected by this

decision. So, quantifying performance is not required to build trust between the employees in the. Instead, trust is an essential part of the organisational culture in the DesignLab.
However, quantification of capacity and performance can also be used for strategic planning, predicting the organisation's capacity for work, and organisational improvements. So the DesignLab can still benefit from the quantification of capacity and performance.
Also, the members of the operational team explicitly ask for quantification of the capacity to establish the aforementioned benefits. Nevertheless, quantification of capacity and performance has not been adopted yet in the DesignLab.
Furthermore, a participatory culture is present in the DesignLab in which all members of the operational team can contribute to decision-making processes and can make their commitment to projects. This culture in the DesignLab connect to maturity level 4 as well.


*Figure 2: The five levels of maturity any organisation goes through.(Curtis et al., 2009)*

Based on the analysis of the DesignLab using P-CMM, it has been concluded that the DesignLab shows signs of two different levels of maturity. Many present organisational challenges in the DesignLab belong to maturity level 3. Therefore, the DesignLab should focus on maturing to a level 4 organisation.

While the DesignLab is still an organisation that is trying to grow from maturity level 3 to maturity level 4, the DesignLab already has the ambition to become a continuously improving organisation. This is deduced from the one-page strategy of the DesignLab, which shows the ambition for adopting Lean and Agile in the organisation (DesignLab, 2018).
However, an organisation of continuous improvement is connected to maturity level 5 in the P-CMM. In maturity level 5, change management is regarded as an ordinary business process in the organisation that is performed in an orderly way, on a regular basis. Besides the continuous improvement of the organisation's workforce practices, the organisation creates a culture of service excellence in maturity level 5.

So the DesignLab is already aiming for maturity level 5 while organisational challenges connected to lower maturity levels are not yet resolved. Although an organisation is never completely in one maturity level, the ambition of the DesignLab results in a disregard of organisational challenges that belong to lower maturity levels.  This, in turn, obstructs the further maturing of the DesignLab as an

organisation.
Thus, quantification of capacity and performance, a clear definition and division of tasks, and organisational learning should first be established before a continuous improving organisation (with maturity level 5) can be successfully established.

## Target Group

The target group of the change process is the operational team of the DesignLab together with the managing director. The managing director is also part of the target group since this person has a significant influence on the tasks that are carried out and the way in which these tasks are completed.

The employees in the operational team cover the following functions:

- First-line support
- Secretary of managing director
- Project manager DreamTeam
- DreamTeam Coordinator
- Communication and Marketing
- Technical support for the workshops
- Project manager
- Internal processes (finance, etc.)

The operational team and the management director of the DesignLab experience themselves the need for further maturing the organisation of the DesignLab. These employees are the experts with regard to the organisational processes so they have knowledge on what can best be improved in the DesignLab. Besides, they can identify how things can be improved in a fashion that fits the DesignLab. Three members of the operational team were only recently employed for the DesignLab. As a result, these members do not have much organisational knowledge yet. Nevertheless, the new perspectives of these employees on the organisation of the DesignLab forms a useful source of information for the analysis of the situation.
The differences in experience with the DesignLab is taken into account and used in the change process. New employees can more easily take up the ‘outside’ perspective whereas the change leaders can find knowledge on the organisational processes at the more experienced employees. Openness to new ideas!
At the start of the project, it has been observed that there is a difference in the presence of certain members in discussions during meetings. The change leaders will take this into account to ensure that valuable insights and perspectives are not lost in discussions.
Furthermore, a tendency to come back to earlier made decisions is present in the operational team and may have a negative influence on the productivity during the change process.
One of the project managers in the DesignLab has been involved in the DesignLab from the start. Given the experience of this employee, the change leaders arranged an exploratory meeting with her in order to gather important information on the origins of the DesignLab and the change process of the DesignLab over the years.
In the change process, two organisational methodologies (Lean and Agile) are used to improve organisational improvement. The DesignLab, and hence the employees, actively uses Design Thinking in many of its activities. This Design Thinking methodology can complement the practices of Lean and Agile (Roach, 2015) and can be used as a starting point from which Lean and Agile are explained.

## Urgency

Initially, it was considered that the sole urgency for bringing along change in the DesignLab was to increase the value of the DesignLab for the University of Twente.
However, during the execution of the change process a significantly more important need for change became evident. It was observed that a larger urgency for change was the (too) high pressure level on the members of the operational team. Among other things, the tremendous growth of the DesignLab has led to the creation of an organisation in which the pressure on the operational team is structurally on a too high level. As the employees of the DesignLab are working at their limits, change is required so that an organisation can be created that is able to operate (and grow) in a fashion which can be sustained.
Before the change process, there was no room in the organisation for improving the processes that are in the organisation as all employees are devoting all their time to daily operations. As a result, the organisation only slowly adopts organisational changes and it reacts slow to emerging challenges and opportunities. This may lead to an organisation that is not able to maintain its unique atmosphere.

## Change Goals

The ultimate goal of the change process is to create an organisation that is able to mature by itself. This is established when the organisation can effectively respond to organisational challenges that are observed and can identify the most important steps for further maturing the organisation.
Due to the wide variety of organisational challenges that are present in the organisation, it was considered to be most effective if the organisation of the DesignLab is provided with the tools to prioritise and solve organisational challenges rather than to solve a specific organisational challenge from the list in section Situation Sketch. In this way, a DesignLab is created that can tackle present and future organisational challenges that become prevalent in different stages of the maturing process of the DesignLab.
The ultimate goal of creating a 'self-maturing' organisation can be divided into smaller goals that can be achieved during the seven week-long project:

1. Make a start with solving an organisational challenge that is connected to maturity level 3 in the P-CMM. In this way, the DesignLab can further grow to maturity level 4 as an organisation during the change process (Curtis et al., 2009). This will be done by tackling one of these organisational challenges in a sprint[1].
   The successfulness of this goal is measured with the acceptance criteria of the sprint that are carried out on this topic. At the start of a sprint, acceptance criteria are created which should be met at the end of the sprint. By checking at the end of the sprint whether the acceptance criteria have been met, the successfulness of the sprint can be determined.
   One
2. Let the operational team adopt the mindset and tools of Lean and Agile that are useful for fostering further maturing of the organisation. Lean and Agile are two organisational methodologies that are perfectly suited for structuring organisational processes; hence, maturing the organisation of the DesignLab. The section Change Approach elaborates on why these methodologies are used in this change process.
   The successfulness of this goal will be measured through the use of a final survey. This goal is considered to be met if 75 % of the operational team indicates that:
   a. they feel (very) much capable of using the sprint methodology (4-5 on a 5-point Likert scale).

[1] A sprint is a four-week period during which a present organisational challenge is tried to be, partly, solved with a small team of three to four employees. (https://www.scrum.org/resources/what-is-a-sprint-in-scrum)

   b. they feel (very) much capable of being a sprint leader (4-5 on a 5-point Likert scale).
   c. they plan to use the tools of Lean and Agile (4-5 on a 5-point Likert scale). Both the Trello board and the other tools that were offered.
   d. they see the value of Lean and Agile in other processes besides organisational improvement (4-5 on a 5-point Likert scale).
3. Establish a mindset of continuous improvement in the organisation by raising awareness of the importance of organisational improvement. This is also part of the mindset of Lean but by making it a separate change goal, the importance of this Lean principle is stressed. The successfulness of this goal will be measured through the use of a final survey. This goal is considered to be met if 75 % of the operational team indicates that:
   a. Continuous organisational improvement is of (very) high importance for the Designlab (4-5 on a 5-point Likert scale).
   b. They are willing to participate in a new sprint (4-5 on a 5-point Likert scale).

These change goals ensure that the DesignLab not only matures *during* the change process. They also enable the DesignLab to progress to higher maturity levels *after* the change leaders leave the organisation. Besides the indirect measurement of this overall goal, the operational team is asked to evaluate the overall goal by reflecting on their ability to solve future organisational challenges and to further mature. The overall goal of the change process is considered to be met if 75 % of the operational team indicates that:

a. The DesignLab is (definitely) able to independently mature further (4-5 on a 5-point Likert scale).
b. The Designlab is (definitely) able to independently solve future organisational challenges (4-5 on a 5-point Likert scale).

## Change Approach
In this section is elaborated on the approach to the change process that was carried out in the DesignLab. Over the course of seven weeks, a project group of three change leaders has closely worked together with the operational team of the DesignLab.

### Acceptance
In order to successfully bring along change in an organisation, it is of major importance that the change approach is accepted by the organisation. Therefore, an approach was chosen that closely connects to the way in which the people in the DesignLab work.
Firstly, a close connection to the DesignLab was tried to be established by collaborating with the operational team in a co-constructive manner. According to the social learning model (Nikolova, Reihlen, & Schlapfner, 2009), the stakeholders from within the organisation are in possession of valuable expert knowledge which serves as the fundaments on which the approach is jointly designed. The change leaders will steer the process and only add content when expert knowledge is considered useful after analysis. While steering the process, the change leaders act as provocateurs (Saxton, 1995) to contribute to the problem identification by challenging the status quo in the organisation.
Furthermore, by allowing the employees of the DesignLab to bring in content to the change process, ownership of the process is created which results in an improved dedication to the process (Pierce, Kostova, & Dirks, 2003).
Secondly, the goal of maturing the organisation was obtained by connecting the approach to the vision and strategy of the organisation. The DesignLab already planned to apply Lean and Agile in the organisation. As Lean and Agile foster an organisational atmosphere of continuous improvement

which benefits maturing organisations (Curtis et al., 2009), the change leaders decided to use these methodologies in the change process.
Thirdly, the problem solving strategy that is actively used in the DesignLab, Design Thinking, was used as a theoretical base from which the methodologies of Lean and Agile were explained. By showing the similarities and the differences between these methodologies, Lean and Agile are better understood and the content of the methodologies is remembered for a longer period of time (Team, 2016).
Finally, the project team tried to work in the same manner as is done in the DesignLab. For example, during the change process, knowledge on Lean and Agile was shared in the form of an interactive workshop. In this workshop, the participants were activated to use the tools of Lean and Agile on their own organisational challenges. The DesignLab also often uses workshops to share knowledge within the organisation.
So, by using the above four ways of working, it was made sure that the proposed change was successfully adopted in the DesignLab.

## Workshops and Lean & Agile

As was mentioned earlier, two separate workshops were organized to introduce both the operational team and the DreamTeam to the mindset and the instruments of Lean and Agile. The workshop is to be carried out with employees in order to give them an idea of different ways in which processes can be structured in an organisation.
During the workshop, the attendants of the workshop will engage in exercises in which they can use existing organisational challenges to introduce themselves to the tools of Lean and Agile. Furthermore, it is explicitly stressed that it is not the change leader's main goal to apply Lean and Agile in the organisation. It is only about using Lean and Agile as a means of finding best practices for improving the organisational performance of the DesignLab.

Lean and Agile are used during the workshop and the change process as a whole for the reason that these methodologies foster a culture of continuous improvement in an organisation. Shah and Ward (Shah & Ward, 2007) define Lean as: 'An integrated socio-technical system whose main objective is to eliminate waste by concurrently reducing or minimizing supplier, customer, and internal variability.'
Agile is a general term for a group of (product) development methods in an organisation. In this project, the Scrum method (that is part of Agile) has been used. Schwaber (Schwaber, 1997) defines Scrum as: 'A management, enhancement and maintenance methodology for an existing system or production prototype.' Although the methodology of Scrum is used in this project, the more general term Agile is used in the report to denote this approach.
These two methodologies are complementary to the P-CMM as each of these three methodologies is used on a different process area in the organisation. Lean focuses on the governance of an organisation, P-CMM on the organisational infrastructure and Agile is used on a tactical level of the organisation (Siviy, Kirwan, Marino, & Morley, 2008).
As could be found in the earlier section P-CMM Analysis, P-CMM is used as the main theoretical fundament from which the use of Lean and Agile in the organisation is justified. Despite that continuous improvement in an organisation through waste reduction (i.e. using Lean and Agile) connects to maturity level 5 of the P-CMM, it is considered useful for the DesignLab in the present stage of its maturing process. Lean and Agile for a smoother execution of the maturing steps because they offer a structured approach to identifying and executing actions that are required to progress to a higher level of organisational maturity (Curtis et al., 2009). Especially the application of Agile can benefit the DesignLab as it helps organisations to create stability by describing a set of rigid structures while also promoting flexibility (Dönmez, Grote, & Brusoni, 2016). Due to the DesignLab's

focus on flexibility, organisational stability is underemphasized. Applying Agile helps with restoring this balance.
Given the absence of a clear idea of the DesignLab on its exact customer group and customer needs which the DesignLab fulfils, Lean can be of value for the DesignLab. Lean helps in creating an organisation with an emphasis on customer focus and which uses the customer needs as a starting point for determining the activities and the strategy of the organisation (Van Dun & Wilderom, 2012). In this project, Lean will be mainly implemented on the governance level of the organisation whereas Agile practices are effectuated on the shop floor level.
The combination of these three methodologies, Lean, Agile, and P-CMM, provides a structured approach to this change process.

### Sprints

After introducing the operational team to Lean and Agile via the earlier mentioned workshop, a sprint team of three to four members is formed in the operational team and the DreamTeam. Sprints are improvement processes of four weeks in which a team of three to four members tries to create tangible results (Vlaanderen, Jansen, Brinkkemper, & Jaspers, 2011). During the sprints in the DesignLab, it is tried to (partly) solve present organisational challenges. The topic of the sprints is to be determined by the members of the operational team during the workshop.
Doing sprints is part of the ‘Consultancy by example’ approach. With this approach, the employees of the organisation become acquainted with useful organisational tools by executing an improvement process on the *example* of a present organisational challenge. This helps the employees in applying the tools that are offered and understanding the added value of a specific approach to improvement processes.
Furthermore, the employees will get a feeling of the values underlying Lean and Agile. Understanding and adopting these values will greatly benefit the DesignLab as it gives the employees an incentive for continuous improvement.
Using this technique, the organisational challenge of the DesignLab is used as an example to train the organisation in the application of internal knowledge for solving organisational challenges. The technique is a combination of a co-constructive, process consultancy approach (Saxton, 1995; Schein, 1990). So the execution of the sprints will enable the employees in the DesignLab to independently solve future organisational challenges that constrain the maturing process.
Since the employees in the DesignLab have a tight time schedule, the use of the tools is made as easy as possible. The change leaders do most of the work for using the tools so that they can show the added value of these tools to the employees. This approach is expected to yield a higher chance of adoption of the tools. Nevertheless, the learning experience of the employees is expected to be lower in this way.

Figure 3 shows the process of the workshop together with the sprints that is aimed to be carried out with two sprint teams.

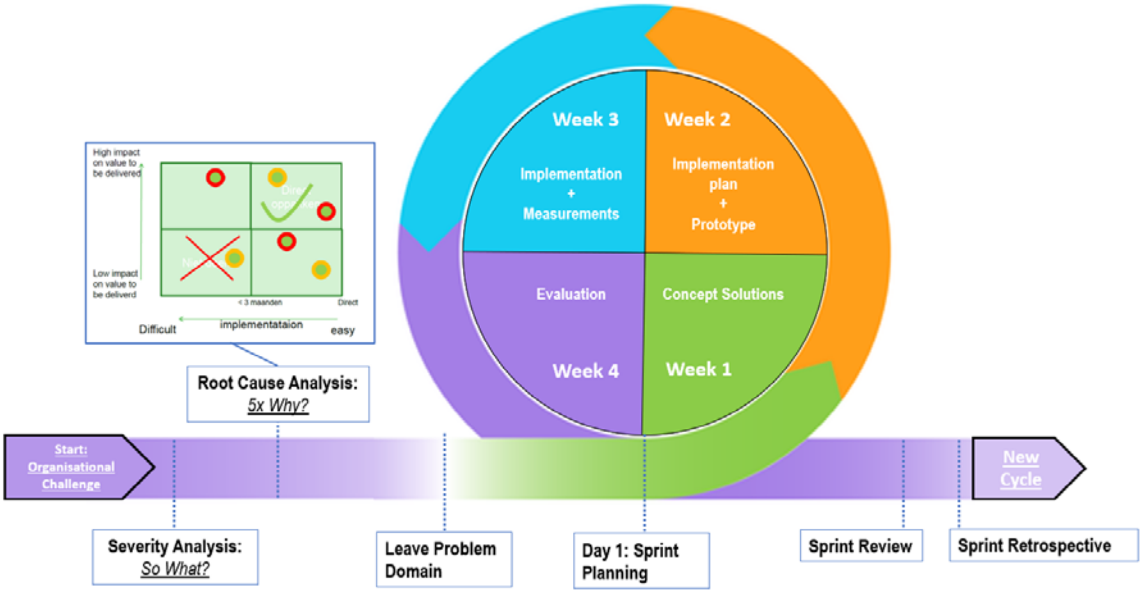


*Figure 3: The desired improvement process that has been designed for the DesignLab by the change leaders.*

## Closing

After completion of the sprints, the change process is closed off during a monthly meeting of the operational team. In this meeting, the results of the sprints are shared among the members of the operational team and the change leaders give a final presentation.
This final presentation covers a recap of the process together with the observations of the change leaders and a final advice for the DesignLab to ensure a successful continuation of continuous improvement in the organisation.
Furthermore, to ensure that all tools that have been introduced during the change process are not forgotten and can be easily accessed, a Trello board is to be made. In this Trello board, an overview is given of a complete sprint process together with useful tools for the completion of this process. As the DesignLab already actively uses Trello, it has been considered to be the most effective way of creating a lasting change in the DesignLab by using this program. This Trello board is also presented to the operational team during the closing meeting.

## Results

In this section is elaborated on the results of the change process in the DesignLab. Multiple tangible as well as non-tangible results have been booked during the past seven weeks.

## Workshop

Both for the DreamTeam and the operational team, workshops were organized.
The workshops have given the employees insight in the various opportunities for improvement in the DesignLab.
Furthermore, the workshops have raised awareness on the need for organisational improvement for the DesignLab. Also, the employees were put in the position to use some Lean and Agile tools during the workshop and to experience to usefulness of these tools.
During the workshop for the operational team, three sprint groups have been formed, each choosing a sprint topic to work on during the subsequent four weeks. One group has chosen an organisational

challenge connected to creating a framework for the workforce. This indicates the awareness of the need within the DesignLab to further mature and it helps the DesignLab to further mature during the change process.

### Sprints

During the workshop, it has been determined not to carry out one sprint in the operational team and one sprint in the DreamTeam. Instead, three separate sprints have been carried out by all members of the operational team. No sprints have been started in the DreamTeam.
In the sprint process that has been created for the DesignLab, meetings with the sprint teams were held only once a week and each team member was required to devote two hours a week on the sprint (including the meeting). The time constraint was put in place due to the already existing work overlead in the operational team.

### Sprint Content

In terms of the sprint content, i.e. organisational challenges of the DesignLab, the following results were booked:
***Note:*** The acceptance criteria that are marked red have not been met at the end of the sprint, the green acceptance criteria have been met.

1. **Capacity on a personal level**. Problem definition: How can we let every employee use their capacity in the best way possible so that they do not exceed their capacity?
   Acceptance Criteria:
   a. Create and validate a flow chart on what to do with a project request.
   b. Gather and communicate best practices for structuring tasks.
   c. Raise awareness that you can say ‘no’ to requests.
   d. Carry out a pilot with using less different media (Whatsapp, Slack, Trello, Monday, Google docs.)
2. **Capacity on an organisational level.** Problem definition: How can we get an overview of the capacity of the human resources in the DesignLab so that we can better allocate our resources and determine the possibilities for extra activities?
   Acceptance Criteria:
   a. Make an overview of the ideal workweek for each employee of the DesignLab.
   b. Make an overview of the tasks of employees of the DesignLab, i.e. ‘Where to go to for what’.
3. **Communication.** Problem definition: How can we improve the communication of projects in the DesignLab so that external stakeholders are better aware of what happens in the DesignLab and how they can become active in the DesignLab?
   Acceptance Criteria:
   a. Identify the needs for communication of the internal projects in the DesignLab.
   b. Identify the needs for communication of the external projects in the DesignLab.
   c. Make a plan for the consistent use of the project portal in the DesignLab.
   d. Indicate how the community manager of the project portal can be supported by fellow employees of the operational team.

Multiple acceptance criteria have not been met for the reason that some employees went on holiday during the sprint process.
Besides, a more important reason is that multiple employees explicitly indicated to have insufficient time to carry out the sprint besides their regular tasks. As a result, hardly any contribution could be

made to the completion of the sprint.
In the section Final Advice, measures are proposed to ensure that a larger percentage of the acceptance criteria will be met in future sprints.

The second sprint has successfully met the acceptance criteria that were set up at the start of the sprint. This sprint, on the topic of capacity on an organisational level, has contributed to the creation of an architecture of the workforce by mapping the tasks that are carried out by each of the employees and by making an individual overview of the ideal workweek of each of the employees. So this sprint (partly) solved an organisational challenge that is connected to maturity level 3, which means that the first change goal has been met.

## Change goals

Besides evaluating the results that were booked during the sprints with regard to the sprint content, the change goals for this project are evaluated through the final survey for the operational team. The survey that was used in this project can be found in Appendix Final Survey. The tables below show the results of the survey that was filled in by the members of the operational team and the managing director (n = 4). At the time of writing the report, only for four employees have completed the survey.

### *Change Goal 2: Adoption of Lean and Agile*

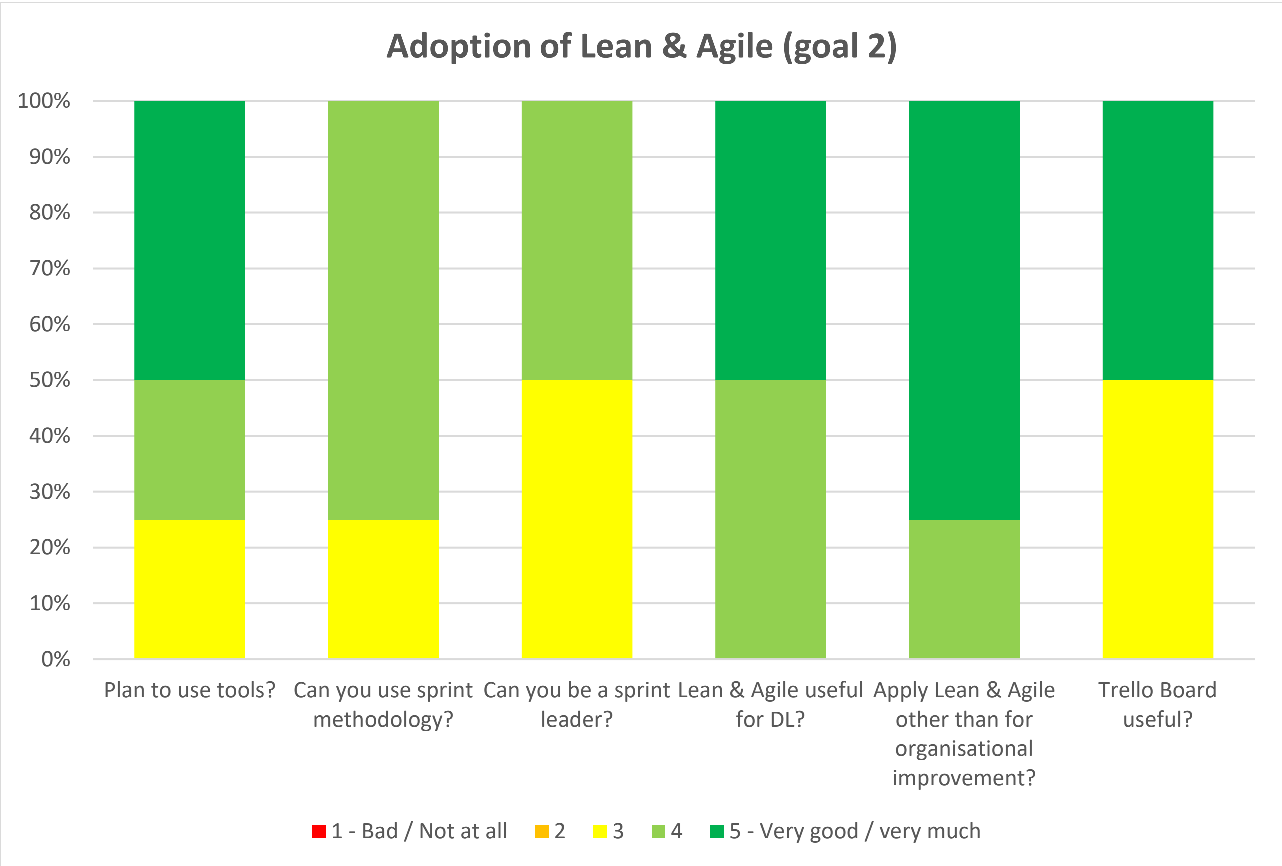


*Figure 4: Survey results for the questions regarding the adoption of Lean and Agile.*

The results of the survey (see Figure 4) show a positive stance of the operational team to the value of Lean and Agile both for organisational improvement as well as regular projects in the DesignLab. Yet, (some) members of the operational team are not fully capable of leading a sprint process. Further education on Lean and Agile may be needed to make improvements on this area.

Also, a 75% of the respondents are positive towards planning to use tools of Lean and Agile that were offered during the project. Only 50% of the operational team takes a positive stance toward the usefulness of the Trello Board that has been developed by the change leaders.

### *Change Goal 3: Mindset of Continuous Improvement*

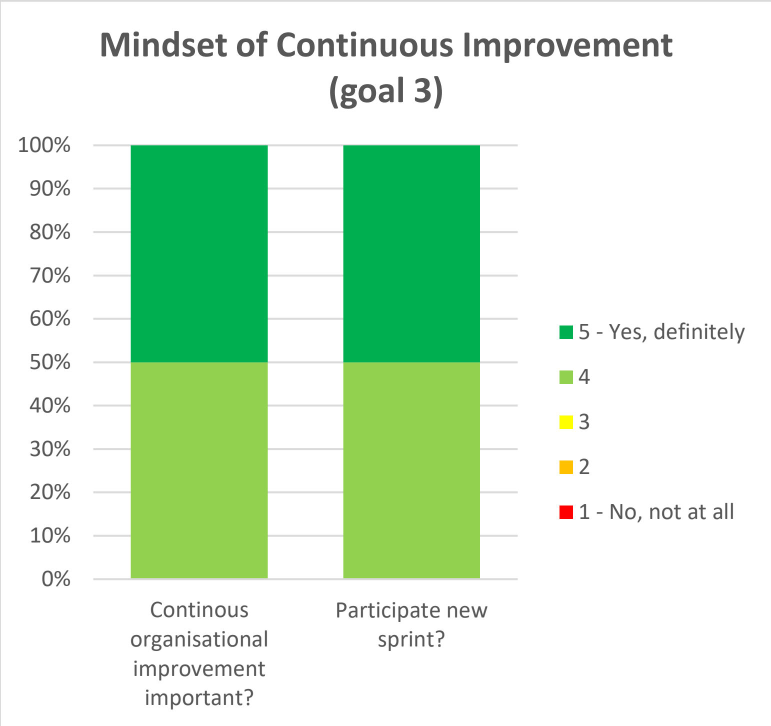


*Figure 5: The survey results of the questions regarding the adoption of the mindset of continuous improvement in the DesignLab.*

Figure 5 shows that the operational team sees the importance of organisational improvement and shows a high willingness to engage in new sprints.

100 % of the employees gives a score of 4 – 5 on the 5-point Likert scale. So the third change goal of establishing a mindset of continuous organisational improvement, is achieved.

### *Overall Change Goal*

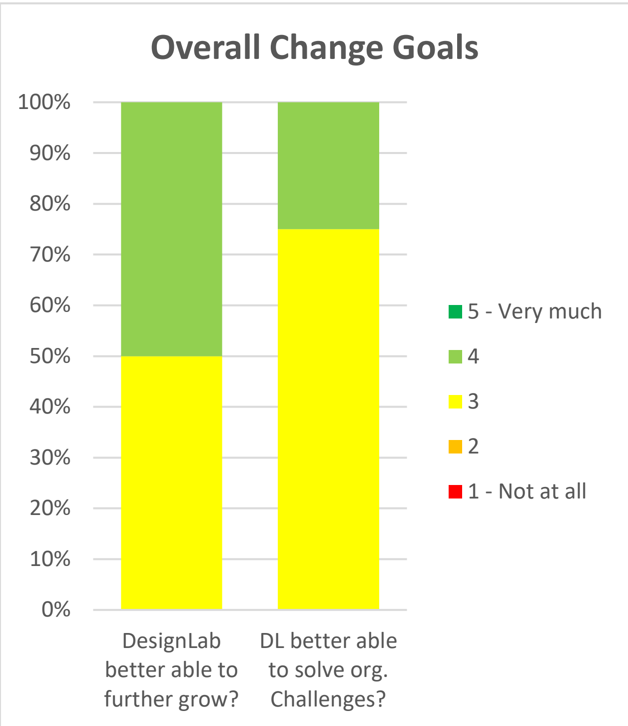


*Figure 6: Survey results of the questions regarding the overarching two change goals.*

Neither of the two overarching change goals have been met. Only 50% and 25% consider that the DesignLab's ability to further mature and to solve organisational challenges has increased during the project. This is lower than the initial goal of 75% of the operational team giving a score of 4 or 5 on the 5-point Likert scale.

## Final Advice

Based on the results of the sprints, the sprint process as a whole, and the feedback of the operational team, the change leaders have presented a final advice to the operational team so that the organisation can further mature and successfully solve future organisational challenges.

- ✓ Make organisational improvement integral to the set of tasks of all the employees. This can be achieved by having, temporarily, extra capacity so that the employees can devote more time to organisational improvement.
  - \+ Improvement of organisational performance over time.
  - \+ Better adaptation to emerging business opportunities and changing contextual factors and more reliable fulfilment of the customer needs (Dönmez et al., 2016).
- ✓ Develop a clear vision for the DesignLab(Olsen, 2018), possibly based on the values of the University of Twente: *Socially committed, synergy driven, entrepreneurial and internationally oriented.*
  - \+ Profiling the DesignLab to external stakeholders will become easier.
  - \+ It allows for prioritization of projects and events.
  - \+ Allows employees to say 'no' to request, hence may reduce workload.
    - \- May harm the core identity of the DesignLab.

  This advice solely serves the purpose of showing the possible advantages to a more narrow vision. If the DesignLab explicitly chooses not to narrow down its vision, it should clearly communicate consequences of this decision to its employees. In this way, the employees understand why this decision is made and they can act better.

- ✓ Transfer tasks of the Operational Team to the DreamTeam
  - \+ Reduction of workload for the Operational Team.
  - \+ DreamTeam members gain more ownership of the DesignLab resulting in more dedication and better connection with the DesignLab (Pierce et al., 2003).
- ✓ Quantify the performance and the capacity of the DesignLab (Curtis et al., 2009).
  - \+ Allows for strategic planning.
  - \+ Better prediction for the organisation's capacity for work.
  - \+ May help finding opportunities for organisational improvement.
- ✓ Embrace standardization in the DesignLab as it does not make organisational activities more rigid.
  - \+ More time can be devoted to 'fun' activities.
  - \+ Organisational performance is improved (Daley).

Advices specifically for improving the sprint process as it was organized in the change process:

- ✓ Assign an employee to be responsible for the sprints
  - \+ Better gathering and sharing of best practices between sprints.
  - \+ Better overview on the most important opportunities for improvement.
- ✓ Members of the sprint team should devote a minimum of 4 hours a week on the sprint
  - \+ More tangible outcomes of the sprint.

By sharing this advice to the operational team and, foremost, to the managing director of the DesignLab, this change process has come to an end.

## Acknowledgements

I would like to thank Dr. Desirée van Dun for the insights she provided in Lean and Agile but foremost for sharing her experience with us and advising us on how to tackle challenges in the execution of our project.
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# Appendix

## Final Survey

The order of the questions as shown in the table is different to the order of the questions in the final survey.

| Questions | Purpose |
|---|---|
| ▪ *What was your general impression of this project in the DesignLab?*<br>▪ *Did you like participating in this project?*<br>▪ *Please list two tips and two tops for the Honours students that carried out the project.* | These questions are asked for the evaluation of the change leaders. The first two questions yield an indication on the importance of the tips and tops that are received in the third question. |
| ▪ *Do you think organisational improvement is of importance for the DesignLab?*<br>▪ *Do you think Lean & Agile offer a useful perspective for the DesignLab?*<br>▪ *Would you like to participate in another sprint covering an aspect of continuous improvement?* | These questions serve the purpose of identifying whether one of the important principles underlying Lean and Agile, continuous improvement, are held dear in the DesignLab after the change process. With these questions the completion of the second change goal is determined. |
| ▪ *Do you plan to use one or multiple tools that were presented in your operational tasks?*<br>▪ *Do you think the Trello board will help you in carrying out the Sprints?* | These questions yield an indication of the value the employees see in the tools that were offered during the project. |
| ▪ *Do you feel capable of using the sprint methodology introduced in this project?*<br>▪ *Do you see the value of Lean & Agile in other processes besides organisational improvement?*<br>▪ *Do you feel capable of being a sprint leader in another sprint of the DesignLab?* | The level of capability with Lean and Agile of the members of the operational team stems from the answers on these questions.<br>The first step in the learning process is to see the value of Lean & Agile and to be able to apply it.<br>An even higher level of capability is achieved if someone is able to lead a sprint and educate others in carrying out an improvement process. The third question covers this purpose. |
| ▪ *Do you think that the DesignLab is now better able to independently further mature and cope with further growth?*<br>▪ *Do you think that the DesignLab is now better able to independently (without any external help) solve future organisational challenges?* | The answers to these questions must indicate whether the change leaders have successfully contributed to the ultimate goal of creating an organisation that is better able to mature and solve future organisational challenges independently. |
| ▪ *Please list two tips and two tops with regard to the use of sprints in the DesignLab.* | Improvement points for the sprints are gathered and shared with the managing director. |

# COLOPHON

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