

# **Phenomenological research into Wim Hof Method through auto-ethnography and participatory practices**

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Supervisor: Nicola Jane Bidwell

Student: Deivids Intovičs

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# Abstract

This thesis explores and investigates the Wim Hof Method (WHM) and application of digital technologies through phenomenological interpretation, auto-ethnography and participatory practices. The report aims to interpret the phenomenological nature of the different elements that constitute the WHM, like breathing exercises, cold exposure and commitment, and other various insights from active participation into fieldwork activities. The aim of the thesis is to bridge the understanding between the technological facilitation of WHM through means of digital technologies, such as the WHM app, by applying a combination of phenomenological insights and techno-anthropological dimension as theoretical approach.

The problem area is related to individual and societal wellbeing regarding the increased post pandemic stress levels and natural response towards more healthy lifestyles. Research activities have been conducted in Copenhagen, with participation in a 4-week course, multiple WHM workshops guided by only certified WHM instructor in Denmark and personal engagement into cold immersion and breathing exercises. The results indicate that there are different mediations between technology and WHM, multitude of personal health benefits and hidden side to the practice.

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# Part 1 - Introduction

## Chapter 1) The world of stimulation

The world of postmodernity is a complex system of interconnectedness and diversity, World suddenly appears to have become smaller. Due to globalization cultural, social and economical lines between countries get blurred and there is a general direction towards expansion and centralisation of power. As time passes, different cultures of the peoples meet and blend with one another, what was once foreign is now familiar. Everything is in constant change, like our lifestyles, communication, culture and technology, besides hundreds of other things. The uncertainty of modern man brings out possible insecurities that are hindered in the subconscious. The always busy lifestyle, overwhelming bombardment of information, consumerism, mental problems, different external stimulations and distractions, keeps the individual at 'the receiving end', and what is sometimes 'ordered' is not consciously picked upon. Nevertheless the current lifestyle of postmodernism has brought many benefits and many drawbacks.

The new world and type of lifestyle is very different from our ancestors. It can sometimes be emotionally demanding and feel as if we are in between 'wheels of society', which are turning and turning. It is as if we have lost connection with the deeper parts of ourselves and each other and have forgotten how to properly ground ourselves. At times of uncertainty is when we experience stress the most.

Just in 2019 the whole world got affected by pandemic and the lockdown constrictions, where one third of the people around the world reported feeling stressed, worried, and/or angry.(SingleCareTeam, 2022) During the time period of pandemic some people have lost more than others and some have been affected to lesser degree. The emotional, individual, social, and psychological implications have been troubling and varying in their degree, and what seems to be consistent for everyone was their increased stress levels. According to the Single Care Team article "Almost 8 out of 10 Americans reported that the coronavirus (COVID-19) has caused them stress." (American Psychological Association, 2020)

Understandably most people have experienced elevated stress during the COVID pandemic, which has caused implications for global mental health. Not everyone in the world got exposed to the virus, but everyone most likely experienced some form of stress.

Stress is one of the common conditions that is experienced by everyone. It does not require being exceptionally healthy to avoid stress, but suggests that prior conditioning to stress increases the body's reactivity to stressful situations. (Aschbacher, O'Donovan, Wolkowitz, Dhabhar, Su, & Epel, 2013, 2)

The stress coping mechanism and individual expression of accumulated stress can vary from person to person, normally the stress comes out in a form of negative emotions and uncomfortable physical

reactions. As it is even recognised by the World Health Organization (WHO), depression is associated with long term exposure to chronic stress. The citation below highlights the importance in recognising depression as a societal issue, since signs of depression can be linked with alleviated stress levels.

*“Depression is among the leading causes of disability worldwide “– World Health Organization (GOS, 2018)*

There is a volume of information that suggests stress being directly and indirectly associated and responsible for many of the global health problems, since it affects the individuals mental, physical and emotional wellbeing. (Patterson, 2021) Where from the phenomenological perspective stress is experienced in the human body, so it makes it into internal and personal experience.

There is a realization that the *macro environment* (physical world) is directly affecting the *micro environment* (internal world). It is important to recognise stress for what it is and to integrate a good stress response through different types of health promoting activities.

## Chapter 2) Customer in the wellness industry

Wellness industry encompasses all of the different services and products that promote physical and mental wellbeing, that is anything from food and nutrition to technology and experiences. The global wellness industry currently is estimated worth 4.4 trillion US dollars (Jones, 2022), despite the recent fluctuations in the wellness industry due to COVID-19 pandemic caused impacts from 2019 to 2020 from 4.9 trillion to 4.4 trillion US dollars. (Global Wellness Institute, 2022)

Besides the market fluctuations from 2019 to 2020 the data suggests that the global wellness industry is constantly increasing its value with an annual growth rate of 5 to 10 percent in recent years. (Jones, 2022) The future estimates for 2025 for the wellness industry differs, but it is estimated between 6-7 trillion US dollars. (Jones, 2022)

There are two distinctive ways on how to look at the wellness industry, one is from the *market perspective*, the other from the *customer perspective*. The research behind market perspective is done by Global Wellness Institute (GWI) and it consists of *11 different sectors* such as: *Personal Care & Beauty, Healthy Eating, Nutrition, & Weight Loss, Physical Activity, Wellness Tourism, Traditional & Complementary Medicine, Public Health, Prevention, & Personalized Medicine, Wellness Real Estate, Mental Wellness, Spas, Workplace Wellness, and Thermal/Mineral Springs*. (Global Wellness Institute,

2022) This is a very systematic approach that segments the different sectors of the wellness industry, based on the different markets.

The *customer perspective* is based on research from McKinsey & Company on how consumers see the wellness market based on their most requested desires. It consists of sections as: *Better (1)health, (2)fitness, (3)nutrition, (4)appearance, (5)sleep and (6)mindfulness*. (Callaghan, Losch, Pione, & Teichner, 2022) This approach focuses on what the consumer recognises as relevant by expressing their purchasing activities as decision making. These six categories represent the customers' priorities for the wellness market from across six countries. Notably the results from the research are limited so they do not represent the entirety of the global wellness consumer, yet they give some indications on consumer needs.

According to research done by McKinsey, where they asked roughly 7500 consumers across six countries from which 79% of respondents believe wellness to be important. As it is mentioned in the same article “..consumers in every market we researched reported a substantial increase in the prioritization of wellness over the past two to three years.”(Callaghan, Losch, Pione, & Teichner, 2022)

Reasonably one of the biggest impacts for the global wellness sector in the past 3 years, has been the global pandemic. As global health has been deteriorating, people realized the importance of good health and wellbeing, especially in times of crisis. The consumer demand towards health promoting products and services has increased from all of the surveyed countries. It appears that the current health trends and demands towards the wellness industry is an organic response to the recent health crisis.

With the increase in the wellness products and services, there have been few trends that have emerged, like people prioritize options of *personalisation*, lots of the future products are going to be *digitalised*, rise of different *services*, and the wellness product category *lines* between different products *continue to blur*. (Callaghan, Losch, Pione, & Teichner, 2022)

As the global wellness market expands so does the digital technologies, tools and services. Suddenly consumers have a variety of options over different areas of wellness and their personal interests can match their desired approach. The consumer has a multitude of choices with everything from wearable self-monitoring technologies, to nutrition, subscription based services and digital technologies.

## Chapter 3) Finding the ultimate stress management tool

Understandably everyone has experienced stress in their lives and knows how it feels to be under a certain degree of stress. With my experience working in the kitchen for 10 years I have experienced lots of unwanted stress. Obviously, every kitchen has different management and internal dynamics. Reasonably the generalization of the same stressful intensity can not be applied to every kitchen, because it differs. While working at different restaurants, I have seen what *short term stress* and *chronic stress* can do to people. (Scott, 2021)

*Short term stress* affects the individual performance, makes one less focused on their task and people are easily irritated, which sometimes turns into aggression. Where the *chronic stress* would be accumulation of short time stress over a period of time. People start to 'burn out,' have signs of depression, hate their jobs and develop health problems. I have seen people quit their jobs many times, because of the effects that stress can have on mental and *physical well-being*. (Aschbacher, O'Donovan, Wolkowitz, Dhabhar, Su, & Epel, 2013, )

There are a variety of ways on how to manage stress levels in everyday life, like any type of physical activity, being in nature, change in nutrition, socializing, meditation and pretty much anything that makes one feel better. (Scott, 2021) The list is long and the options are numerous, yet it seems that people still need assistance towards managing their stress coping methods.

Sometimes when working, I have experienced stress from both of the perspectives - *short* and *long term*. Intuitively I have taken some deep breaths a couple of times, which has helped me to cope in stressful situations and keep myself focused on the task.

When being in stressful situations, long deep breathing actually has helped to stabilize my state and put the focus on the present moment. By being present my mind stops twirling around and enables me to enter a state of no distractions. Stress management can be considered as quite an important skill towards longevity and especially towards self mastery, since it gives individuals more control over their reactions to different unpredictable situations.

In a sense my interest towards personal improvement and stress management had driven this research to the field of breathwork and breathing exercises. In this case the effects on the body and the hidden side of the practice.



The search eventually led me to Wim Hof Method (WHM), which currently could be considered as one of the most popular methods available that consists of *conscious breathing*, *mindfulness* and *cold immersion*. (Wim Hof Method, 2022)

In the last decade WHM has gained increased public attention and there are numerous podcasts with Wim, the man behind the practice, being guest on shows, like *The Joe Rogan Experience* (Rogan, 2015, #712) *Under the skin with Russel Brand* (Brand, 2019, #70), *The Tim Ferriss Show* (Ferriss, 2015, #102) and more. Wim has also been featured in three documentaries: BBC - *Inside the Human Body*, VICE - *Iceman Documentary* and Discovery Channel - *Superhuman*, besides all the activity he also has his own podcast called: *Wim Hof Podcast*. (Wim Hof Method, 2022 [8]). People get engaged by different means like becoming WHM instructors, joining physical and online workshops, joining social groups, individually practicing the WHM etc. These recent activities show interest towards the Iceman and marks WHM entry to mainstream through the entertainment industry.

## Part 2 - Problem area and Problem Statement

### Chapter 4) The Problem Area

During the COVID pandemic social dynamics of human interaction had suddenly changed from *face-to-face* to increased use of *digital technologies*. Some of the physical tools and approaches for stress management and promotion of personal wellbeing had to be optimized for the existing situation. What was once a group fitness practice, was now online fitness practice facilitated via telecommunication tools. This discourse opened up a necessity for more digital services and alternatives towards minimisation of social physical interactions. In general people had more free time towards personal improvement and self care related practices.

“...(2) *Self-care practices have increased; more than one-third (39%) of participants indicated that they started a new or additional self-care practice during the pandemic, and about a quarter (23%) of patients who were not previously engaged in self-care practices started new self-care activities for the first time..*” (Fiske, Schneider, McLennan, 2021, )

The citation above is from a study done in Germany which supports the assumption that self-care practices have increased in popularity during the period of the pandemic. The results indicate the growing

interest towards self-care practices as a post-pandemic response. Currently there are a variety of tools and techniques available for stress management, like different meditation apps, soundscape technology, self tracking devices for personal optimisation, different health promoting protocols, online workshops and other. The list of available technologies and solutions is large and there are multiple variables and differences between the effectiveness and intentionality of the available methods.

As the global mental and physical health continues to deteriorate and the wellness market expands, there is a growing necessity and interest towards more accessible tools and technologies. People are looking for quick, easy and effective solutions towards health optimisation and dealing with their everyday stress levels. One of these possible solutions is the WHM that is neatly incorporated with *digital technologies*, such as the *WHM APP*.

## Chapter 5) The Problem Statement

There is an advantage and necessity to explore the WHM from a techno-anthropological and phenomenological perspective, since the WHM embodies the technological dimension through different technological and social relations, and requires phenomenological and ethnographic approach towards understanding the different experiential aspects of the WHM. The problems statement (PS) is as follows:

“What can phenomenological and auto-ethnographic insights bring to understanding the relations between WHM and technology? ”

In order to have a more explorative and supportive approach towards the problem statement, it is relevant to explore some of the different, yet related areas from the Techno-Anthropological(TA) Triangle in connection to the problem statement, with means of additional research questions.

The first area of interest is related to understanding the WHM itself by exploring and describing the different elements that constitute the method with means of epistemological and participatory observations. Which looks like this:

**RQ1 - “What are the key features of learning and practicing the WHM?”**

The second area of interest is related to understanding the different potential benefits from the application of the WHM and how it could potentially address individual and societal challenges of mental and physical wellbeing, that is expressed as research question number three and it looks like this:

**RQ2 - “What improvements to individual and societal wellbeing are attributed to WHM and how are these experienced and/or observed?”**

As the last area of interest will be concerning and exploring the roles of digital technology in its relations to WHM, to understand the relations between practice and digital technology by approaching the *socio-technological* interactions with application of the Techno-anthropological Triangle

**RQ3 - “What are the roles of digital technology in supporting the practice of the WHM, and what characteristics of WHM are not well supported by digital technology?”**

With attempts to answer the R1, R2, and R3, I will create a more holistic overview between the different expertise and dimensions of the TA-triangle, that is central to answering the PS.

### **Scope of the research**

This research is going to apply a mixed theoretical framework of phenomenology and techno-anthropology, in order to have a counterbalance between descriptive and analytical dimensions of the WHM and technology at place. The research is not entirely of phenomenological nature, but it rather adopts the phenomenological approach and philosophical stance of phenomenology, by highlighting the relevance of individual experience and challenging the normative assumptions. It is going to be achieved, first by applying phenomenology to extract *deep* insights from individual practice, supported by ethnographic and participatory observations from the group practices. Second by applying TA-triangle to understand the different interactions within the techno-anthropological domain and establish a link between various practices. Research will include physical participation in workshops and auto-ethnographic practice with journaling.

The depth of analysis on physiology is not going to be elaborated extensively, since for this research it serves for descriptive and informative purposes and the body of research is too extensive to capture in this report. I am also well aware that I have engaged into this research with positive expectations towards the effectiveness of WHM, so there is some degree of existing bias.

## Part 3 - Methods and Theories

### Chapter 8) The Research design

In this part of the report I will introduce the different methods for data collection that have been used and explain the discourse of the research process from its early development. The research design for this report has been relatively flexible and diverse in terms of the data collection, meaning that it has consisted of various mixed methods, both qualitative and quantitative.

Initially the data collection strategy for this research started by collecting and analyzing numerous amounts of scientific studies regarding certain topics and keywords. Such keywords for the search inquiry like '*breathing exercise*', '*WHM*', '*nasal breathing*', '*historical significance*' and '*health benefits*'. For the data collection I used research papers from websites such as *Researchgate* (Researchgate, 2022), *Pubmed* (PubMed, 2022) and the *WHM website*. (Wim Hof Method, 2022) Before engaging into the topic of WHM for this report, I was already familiar with some of the studies regarding the WHM, so it enabled me to have some familiarity with the topic and that also indicated some level of personal bias. I have also used various channels of information for supportive material, such as books, podcasts, documentaries and digital media. This has been done in order to map out the Atlas of the different dimensions of WHM and similar breathing techniques. The structure for research design is complimentary since it employs overlapping methods for data collection, such as ethnographic interviews, participant observations, taking notes and writing descriptions.

The research process of this report can be considered as progressive in its nature due to means of the discourse of finding the appropriate information through informants, participatory experiences and testimonies. Initially there was not made any clear distinctions and hierarchical structures between the different information channels that would be used. Normally it would be done by applying a fixed research strategy. Instead a more flexible approach was employed, thus encouraging me as a researcher to be explorative and always ready for new information to emerge.

In a way, the research process unfolded itself, through means of not so deliberately planned actions, yet keeping in mind the intentionality - to find out as much as possible through different channels. I found and got in touch with an *informant/expert/certified instructor* Birger Hanzen who had direct access to WHM practitioners and in-depth knowledge regarding the WHM practice itself. This enabled me to get direct access to people that are new and advanced WHM practitioners in a controlled setting. I managed

to participate in a total of 7 workshops, 4 of them being part of a 4-week course, 2 of them drop-in free tryout courses and 1 of them Advanced WHM workshop in collaboration with Nature tales vibro-acoustic studio.

These experiences enabled me to observe one fixed group of WHM 4-week course participants for a span of four weeks, giving me the opportunity to observe a study group in a fixed setting. Nonetheless, I have also managed to participate and observe WHM workshops for beginners and advanced WHM practitioners. This gave me the perfect setting to understand the user, yet I still needed to find the right technology for the techno-social configuration.

While being in this '*control group*', besides making observations I also participated in the practice of WHM under the guidance of Birger. This enabled me to understand the practice better since I was taking part in the experience. I considered this very advantageous for the research process, because this level of engagement enabled me to relate to practice through experiential perspective. Upon joining the 4-week course I was bound to practice the WHM on a daily basis, during the span of the course, so besides group participation, I also practiced individual engagement in the WHM. These alterations in my research led me to adopt a phenomenological approach, as a means to document and understand the practice. Reasonably I still needed to find the technological element of the WHM, and fortunately the WHM app was the tool commonly used by the WHM practitioners.

Evidently application of phenomenological approach can be very advantageous when working with something like WHM, since assumably the experience embodies hidden knowledge in the practice itself. (Lester, 1999, 2) The application of phenomenology suggests that there is a depth to extracting the quality of information. Notably, for deeper information to emerge, it is necessary to explore the WHM by practicing it. In the case of WHM the practice can be fully accomplished by merging with the experience of the practice, by being fully present while doing the breathing exercises and cold immersions.

Keeping this in mind, the phenomenological approach has been applied later in the process of data collection as a means of documenting my personal experiences by taking notes and engaging into the individual and the group practices, focusing on the internal experiences.

The initial research process, auto-ethnography, participatory observations and phenomenological approach enabled me to create a mixed method for data collection, between the external-observable experience and the internal-hidden experience of the practice that supports itself by reinforcement of overlapping methods for data collection.

To sum up the research strategy, phenomenological approach with support of ethnographic methods has been used as the primary means to collect and optimize the data in a meaningful manner through

participation, observation from the field works, interviews and documentation of the different experiences. Secondary means for data collection employ supportive data analysis of literature reviews and research through online channels, to get an overview on the fundamental scientific claims behind the WHM, where this data is used to support the proclaimed arguments throughout the report.

## Chapter 9) Auto-ethnography

A considerable part of data collection has happened through plentiful entries towards self reflection and journaling while conducting the individual practice. Auto-ethnography ensures the collection of concrete data over a wide range of fields, both the phenomenological dimension of the experience and the process of product and reflection. I want to use this quote that highlights the essence of auto-ethnography:

*“A researcher uses tenets of autobiography and ethnography to do and write auto-ethnography. Thus, as a method, auto-ethnography is both process and product.”* (Ellis, Bochner, Adams, 2011)

To apply the auto-ethnographic methods is very useful since they are versatile and enable the researcher to flexibly navigate through methods suitable for different situations. This approach facilitates the writing down process of personal and interpersonal experience to further analyze the subject culture.

The importance of fieldwork is recognised in anthropology, since it is the most important source of new knowledge about society and culture. (Eriksen, 2001, 29) Due to the richness of the data, I had conducted fieldwork from 7<sup>th</sup>-28<sup>th</sup> of March 2022. During this time period, I had participated in a total of 6 workshops, where 4 of them were part of a 4-week course and the other 2 free-hop-in workshops.

As it is with fieldworks, they are normally time intensive, preferably the fieldwork could have spanned for a longer period of time, in order to conduct more planned out research and extract accurate data. Considerably participation in the workshop in a group of 23 people is a suitable environment to conduct fieldwork. (Appendix 1) During the 4 week period I had spent 12-16 hours with the participants of the programme. Initially upon joining the course there were a total of 23 participants, but by the end of the course it had gotten to 16. Approximately the attendance was a 50/50 ratio between men and women, which fluctuated from week to week. Some of the participants arrived in pairs, such as friends, family and couples. From a research perspective the personal involvement in the ethnographic activities regarding the ethical assessment is with respect to all participants. Opening up and sharing personal stories is part of the collective expression of showing camaraderie, it also requires ethical reflexivity, since some of the attendees have personal reasons for attending the 4-week course.

For this project the fieldwork is regarded as the workshop activities that are practiced outside the usual practice location - my home and the surrounding area. The practice of WHM consists of 3 fundamental elements that are: *mindset*, *breathing exercise routine* and *cold exposure*. (Hof, 2015, 6) These three elements are complementary to each other for the WHM to work effectively. For a total span of 2 months I have fully engaged myself into WHM, that I have practiced during the *group practice* and the *individual practice*. While practicing the WHM, I have been documenting my experience in a physical journal, to which I have made a digital file called Individual practice observations. (Appendix 3) This is where I have kept my notes, observations, descriptions and ideas. Another documentation tool that was useful is the WHM app. It helped to track my oxygen retention progress and served as a digital journal upon registering the different entries into the app. In a way, the WHM app served as a *digital tool for auto-ethnography*.

Every time, when at home, I would document the breathing exercise experience by journaling it after being done. By journaling it improves the chances of understanding the phenomenological nature of the breathing exercises and increases the general understanding of the WHM culture.

Applying auto ethnographic methods has been very useful since it appears to be the most appropriate framework for data collection and documentation for this project. The fieldwork involves active participation and engagement with other participants, in order to learn more about their culture (Ellis, Bochner, Adams, 2011). In the workshop the *insiders* of the culture are to be considered the WHM practitioners. Besides joining the 4-week course for beginners, I felt more like an insider because of my prior knowledge and basic practice of WHM, since also most of the participants had only practiced 1 or 2 of the elements from the WHM. After the first participation in the workshop, it was clear that *anyone's success is everyone's success*, that it is equally celebrated for all. For example the first ice water submerging. What first seemed impossible, turned possible for 20 out of 23 people. Everyone equally celebrated each other's success, through supportive clapping, encouragement, laughter and smiles. (Appendix 1)

To sum up, auto-ethnography has been very useful and gave me the proper tools and methods to generate a cultural understanding from the insiders and outsiders perspective in a holistic way by contributing to the general research design.

## Chapter 10) The Interviews

One of the fundamental and qualitative methods for collecting data for this research has been conducting three interviews with people such as WHM instructor, WHM practitioners, Biohacker and informal interviews with some of participants from *WHM 4 weeks course*. Interviews are a fundamental and necessary part of qualitative data collection, especially when keeping track of the participant progression.

Before conducting any interviews I made a long list of related questions and grouped them accordingly with the different themes for the analysis. When the interview questions were prepared a methodological framework of ethnographic interviewing was applied. In the ethnographic interviews, there are two essential processes, such as *rapport* and *eliciting information*. (Spradley 2003, 44) In the context of ethnographic interviewing, rapport is a complementary element, which simply means establishing a harmonious relationship between ethnography and informant. (Spradley 2003, 44) With established trust, the information flow happens more freely. Good relationships can enable the informant to open up and share insightful information, which can be valuable for the researcher. The being together, occasional communication and communion through WHM practice has contributed towards bettering the relationships for the process of rapport. By evolving relationships with few of the participants, has enabled me to open interesting discussions with the fellow participants, elicit some valuable insights and work closely with Birger.

The second process, *eliciting information* is central to ethnographic interviews and revolves around gathering information discreetly. Luckily, the rapport had optimal facilitation since I was actively participating in the 4-week course with the informants. This was time advantageous since there was no need to set up the framework for facilitation, thus enabling me to focus on ethnographic activities.

The interviews conducted were *semi-structured*, I prefer working with this approach, since the nature of the conversation can be more organic (Question Pro, 2021). Applying this structure enabled me to have a more natural and fluid conversation, where the interview structure adapted through the interview.

For most of the interviews the questions (Appendix 2) were planned and thoroughly made in accordance to elicit specific information, so each one of the interviews that got recorded had different questions, specially tailored for the interviewee. In total there are three extensive interviews that were conducted for this report, each one mapping out different and common elements of the WHM, at the same time focusing on the individuality of the practitioners and learning more about their personal experiences.



## Chapter 11) Participatory observations

Being engaged in different WHM workshops, gave me the opportunity to equally participate as fellow WHM practitioners. By actively engaging into the workshop activities and constantly socializing with the fellow practitioners, enabled me to fully engage into practice and conduct meaningful discussions. During the workshops I made unstructured participatory observations and different notes, in between moments when sitting and listening to Birger's group discussions.

One of the milestones that affected my data collection and prevented me from fully emerging in the experience was the language barrier. The 4-week course was happening in Danish language, since all of the participants were native. My Danish language skills are at an intermediate level, so I had to pay extra attention to fully grasp the entire context of the conversations. Despite the language barrier it enabled me to focus more on the observations and phenomenology of my own experience. Observing this combination of externality and internality, has bettered the immersion with locals - participants, where the entry point was not so distant. In a sense the cultural adjusting only existed on a language level between the researcher and practitioners, since the entry point in the workshop for everyone was the same.

I followed the methodological structure on conducting participant observations (Spradley, 1980) where there is a distinctive difference between *ordinary participant* and *participant observer*. In the context of the 4-week course the attendees would be considered ordinary participants, since all of the participants act as one in a social situation and act unconsciously in socially shared activity. (Spradley, 1980) The participant observer, in this context - the researcher, would have intentionality in mind to study the social situation by observing the participants of the subject experience.

To embody the role of *participant observer*, Spradley further on describes different activities and qualities that are associated with it (Spradley, 1980). The researcher has to engage into the social activities by having *dual purpose*, (ibid) meaning that they have to participate and observe the social situation and the different aspects of it. Secondly, *explicit awareness* (ibid) which is more of a personal skill that can be trained, meaning the researchers ability of becoming aware of things that are normally blocked out due to the information overflow. Thirdly, *the wide angle lens* (ibid) is relatively similar to explicit awareness, meaning that the participant observer ought to approach the social situation with a wider-angle lens so as to collect a broader spectrum of information. Fourthly, *the insider/outsider experience*, (ibid) by engaging into participant observations one becomes the practitioner and the observer at the same time, so fully immersed in the experience. Lastly, *introspection* (ibid) is very valuable when applied in participant observation since it revolves around emotionally reflective processes. To bind together all of the different

dimensions for participant observations, *record keeping* (ibid) is central, because it helps to register the objective observations and subjective feelings and establish a timeline for progression. I tried to keep in mind and practice most of these elements when engaging into the participatory activities, for all the mentioned reasons.

There is another dimension that Spradley mentions, that is the difference for the degree of participation. They vary from each other from the *degree of involvement*, starting with the least active to most active, such as *non-participation*, *passive*, *moderate*, *active* and *complete* (Spradley, 1980).

My role of participation has changed throughout the workshop period. Initially upon joining the 4-week course, I was not introduced to the rest of the group as a researcher, so people would consider me as the fellow practitioner, so I took the passive approach. By being disguised with the other practitioners, people did not have any pre-conditioned biases towards me, so I did not stand out from the crowd with my intentions for being at the workshop, for research and personal desire.

For the most part, besides the participation, the first two workshops I mostly observed, to get the overview for general dynamics and workshop atmosphere. I have tried to stay moderate in level of activity for engagement, that is to stay balanced between being an insider and outsider, between participation and observation. (ibid) This type of approach has been applied mostly during the moments that are suitable for taking notes, observing the bigger group discussions and dynamics, observing and socializing around the snack table. (Appendix 1)

During the periods of the breathing exercises and cold immersions the level of participation turned from moderate, towards active, to complete. According to Spradley active participation is the second highest degree of involvement that the ethnographer can achieve during the participatory activities (Spradley, 1980). In order to better explain the understanding for active participation, it is beneficial to explore the contrast between complete and active participation.

The main difference would be in the active (ibid) participation the researcher is not fully emerged in the experience, due to various reasons like, lack of understanding of the culture or technique, where in the complete (ibid) participation the researcher is part of the experience and there is no separation between the experience and the researcher. To be a complete participant it is to say that the ethnographer studies the situation of which they are a part of. The practice of breathing exercises and cold immersion suggests in itself that the process of the method requires complete engagement into the activity. Since most of the workshop participants are at the beginner level in their WHM practice, it is experienced as collective and complete participation and requires full trust and surrender towards the method.

## Chapter 12) Quantitative data collection

To collect some of the supportive data, mixed methods have been applied, mostly quantitative methods. Quantitative data collection can potentially be beneficial when working with intention to quantify and collect bigger volumes of data, where analysis is later formed by using deductive approach. (Quantitative research, 2022) This approach provides researchers with large sets of data that gets deducted through the analytical process. It is considerably beneficial when working with large groups of people to collect specific data through this approach, since most of the time it is a relatively time efficient process.

Initially the primary method for the desired approach for the research design was to focus towards large sets of data, by applying digital ethnographic methods. Since the discourse changed throughout the research process, the strategy had to adapt with the discourse of the project.

The initial plan was to collect and analyze data from different social media groups, like Reddit (Reddit, 2022), Facebook (Facebook, 2022) and various online sites. This data would have been gathered through different Facebook groups, where some of them are public and some of them are private to Facebook users. In total I joined 19 different Facebook groups, where 8 are private and 11 are public. These groups are focused mostly towards different practices of breathwork, online breathwork events, Wim Hof method and community. When searching for the different groups on Facebook the search query that was used was '*breathwork*', '*community*', '*WHM*', '*Biohackers*', '*health benefits*', '*breathing*' and '*breathing exercises*'. After the search, I had joined groups that are public and the rest of the closed groups, where I had to wait for the pending approval. Before joining the groups the intentionality was to connect with as many different channels of information as possible and to collect testimonies from the different practitioners around the world. There was no geographical criteria to the data collection, since groups are digital and most of them have members from around the world. The only criteria is that communication in the groups is done in the English language. The groups vary in size, starting with the smallest group of 87 members to the largest of 26.5K members. Understandably the amount of participants determines the amount of posts that is generated and shared within the groups. So for the larger groups, there would be more posts generated on a daily basis than in the smaller groups. With few exceptions some of the smaller groups were more actively engaged than some of the larger groups.

Obviously for a multitude of reasons it was not possible to thoroughly analyze the content from all of the groups, since the amount of information is overwhelmingly large. It would have been very beneficial to apply something like a *web crawling tool*, to automatise the data collection and segmentation of collected

information. Notably, there are also some concerns regarding the privacy of information, confidentiality and legalities, since some of the groups are private and some public. By being aware of the different advantages and disadvantages when conducting the data collection through these social media platform groups, it has supplemented this research with a variety of secondary data. Mostly by being a member of these groups, has enabled me to recognise common drives, overlapping areas of interest and observe the general dynamics in specific groups. It has been useful in terms of understanding the regular, online practitioner in different breathing technique groups and seeing some of the commonalities and differences within the large community of breathwork.

The second approach where quantitative methods have been applied, has been during the workshop practice. A digital online survey was conducted to collect relevant data from the 4-week course, to track and justify the group's progression. The survey (Appendix 4) was made as assessment to qualitative data collection, by mapping out *essential information* regarding *personal progress*, *workshop experience* and *ability to integrate the learned practice in everyday life*. This survey was introduced to the participants of the 4-week course during their 3rd workshop session and the users were encouraged by the use of their smartphone devices to fill up the survey. (Appendix 1) The survey was accessed through a generated QR image. After the 3rd workshop, Birger had also digitally distributed the survey via email to all of the 4-week course participants.

To sum it all up, quantitative methods have been applied as supplementary means for primary data collection, which has been done in two ways - scrolling through '*breathwork practice*' Facebook groups and the use of surveys to collect data. Secondly, applying mixed methods for data collection, helped me collect diverse and different data in favor of the qualitative research methods.

## Chapter 13) Toulmin Method for Argumentation

The Toulmin argumentation method (Blinn College, 2016, 1) has been applied in order to create a strong thread and consistency throughout different parts of the thesis. This is an argumentation method that breaks down into six components - *claim*, *grounds*, *warrant*, *qualifier*, *rebuttal*, and *backing*. (Purdue Writing Lab, n.d.) All these different elements are necessary to consider when building up a strong argument. In this report the Toulmin argumentation method has been used to follow certain *claims* throughout the different parts of the report and the considerable reasoning behind the *claims*. The general purpose for applying this model is to be intellectually flexible in regards to presenting the different *claims* and considerations for a multitude of directions. The method also gives deeper, analytical understanding

behind the *claim* and enables to compare the arguments with one another in a structural way. The general overview for Toulmin's argumentation in its relation to the different parts of the report can be seen in Appendix 7.

## Chapter 14) Phenomenology

The theoretical and methodological approach of phenomenology is applied in order to guide the further analytical process of the research and find some *deep knowledge* through application of othnology, ethnography and participatory processes. The goal for applying phenomenology is to formalize ontological aspects of experience that are taken for their face value. It is an adventurous process that brings awareness towards different structures of everyday life and practices (life world). Phenomenology studies individual experience and uses personal knowledge, interpretation and subjectivity to gain insights into people's motivations, desires, experiences and actions. (Lester, 1999)

In this chapter of the report readers will be briefly introduced to some of the relevant concepts from phenomenology and the intended application in regards to analysis.

### The Three Philosophers

Phenomenology has its roots at the beginning of the early 20th century as it was founded by German philosopher Edmund Husserl, with two other dominant figures that are very highly influential in the development of phenomenology, which are German philosopher Martin Heidegger and French philosopher Maurice Merleau-Ponty. It is important to establish the notion that there are different takes on phenomenologies by these philosophers, yet they still represent their individual take on phenomenology.

Husserl applies a *descriptive* approach towards understanding '*eidos*' or '*the essence*' of the perceived phenomena, like understanding *what makes the experience* where he uses *phenomenological reduction* to gain insights. (Beyer, 2003) The father of phenomenology Husserl in his work *Ideas*, discusses concepts such as *eidos* (Husserl, 1931), which represents *the first person point of view*, where brackets - '[]' are used to capture and represent the perceptual essence of individual in its relation to something outside, like the environment/outside world. (Beyer, 2003). This indicates the importance of individual perception to its relation to the *life-world*, that represents total assemblage of the world as we know it, including intersubjective and social spheres. For Husserl the understanding of phenomena comes through *description* and ways how it can be validated, that is through *experiential* basis that underlies the phenomena. One of the key concepts of Husserl's phenomenology is *intentionality*, which indicates a

*direction* of thought or consciousness that is prerequisite before taking an action. This conscious intentionality is referential in nature, meaning that it referees to something, at the receiving end.

*“According to Husserl, there are non-intentional units of consciousness as well. (He quotes pain as an example.) What distinguishes intentional from unintentional experiences is the former’s having intentional content.”* (Beyer, 2003)

So to say intentionality indicates some level of *conscious deliberate action*, that can also be a specific thought, so the action does not have to be physically expressed in the life-world. These are the key concepts from Husserl that I have decided to highlight, since they will later be relevant for the research.

Heidegger’s approach is interpretative and focuses on the ‘*Dasein*’ or ‘*essence of being*’, which describes ‘*being as an inseparable part of the world,*’ where Heidegger criticizes the method of reduction as too artificial. With Heidegger’s approach to *Dasein*, he suggests that the *being* is always present, but it never reveals itself. (Davies, 2014, 9) In Heidegger’s sense, what is phenomenal is not the objects of knowledge, but the moments of a world, which can be experienced in their significance; and they are grasped as phenomena not through reflection, but by being withdrawn. What is lacking, denies itself and comes into appearance in *Dasein*. (Davies, 2014, 37) Heidegger asks questions like - What does it mean for something to be?

Heidegger describes the phenomena as something concealed, that does not show itself, something that lies hidden and concealed from the observer. He further elaborates on the nature of phenomena as it is something in a form of illusion, because it might appear as something, where in reality the perception of it, is not what it appears. (ibid) Heidegger also mentions the idea of *clearing*, which is very well expressed as follows:

*“The clearing is the “free space” (BW 444): what is occupied neither by the present nor by the absent. It is neither beings nor not- beings; it is the interval in which something can show itself and be shown.”* (Davies, 2014, 40)

He recognises and describes the clearing as an ‘*open space,*’ a place where beings come and enter, the possibility of phenomena to take place, a place that is not occupied with the present, nor the absent. (ibid)

He also calls it a place of stillness and characterizes the *beings* as something that can or will not reveal itself. In relation to clearing Heidegger mentions the concept of *primal phenomenon*, where he adds that it is something with particular clarity and distinctiveness, that leaves the observer in awe and lack of words, due to the overwhelming nature of the phenomenon. He makes a distinction between clearing and primal

phenomena by emphasizing that *clearing* is the clarity of phenomena, which becomes evident in the *primal phenomenon* and that these two concepts would not be without each other. (Davies, 2014, 42)

*“Heidegger’s chief concern is not with how this particular thing X relates to that particular thing Y, but rather how it is that the meaning of Xs and Ys and their possible relations gets determined in the first place. What does it mean for such things to be; what does it mean to say that they are? This question of “ontology” (the study of being), rather than questions regarding the “ontic” relations between particular beings, is what primarily interests Heidegger.”* (Davies, 2014, 5)

As it is for Merleau-Ponty he describes *human - world interaction* as intertwined and mutually engaged and alive, so that it co-shapes one another. (Moya, 2014) He describes the human experience as a connected system between cognition and body, where body and mind comes into unity through behavior and forms *intentionality* from what it creates meaning. This constitutes what he calls *embodiment consciousness*. He perceives consciousness, body and world as intertwined and mutually engaged. He describes the phenomena of the world and sense of self in a constant process of *becoming*. (ibid)

*“Between the movement of the body and the world, no form of representation is established, but rather the body “adapts” to the invitation of the world”* (Merleau-Ponty, 2012)

Following this notion the interaction between body and world happens through bodies adaptations to the world. The body represents a space, just as the surrounding world does. He attributes *habit* as a dialogue between environment and the body. Habit then is expressed as a reaction to the world, in a sense the body responds to the mind and different intentions.

*“Merleau-Ponty frequently expresses the close relation between body and world with the term “inhabit,” as referring to that which is known by the body and which translates into a knowledge of what to do with an object without any reflexion coming in between“* (ibid)

Here it appears that Merleau-Ponty talks about *intuitive knowledge*, that is expressed by the body being able to adapt to given situations by ‘*understanding*’ the situation at place even if the situation is unique in nature. (ibid) He also applies the concept from Husserl, like *intentionality*, meaning the operational

intentionality of consciousness as it is referring to something in nature, like an *ongoing referential process* between the environment and subject. Simply put, the world around shapes the sense of self.

*“The environment calls forth a specific body-style so that the body works with the environment and is included in it. The posture that the body adopts in a situation is its way of responding to the environment”*  
(Ibid)

With this concept in mind Merleau-Ponty highlights the co-shaping and ongoing nature of bodies' response to the environment.

As it is recognised in phenomenological tradition it has thought of itself as an alternative approach to science, where science applies analysis and compartmentalizes the reality to understand it and phenomenology attempts to describe the reality from an intrinsic experiential point of departure, or to have a descriptive representation of the participants. Phenomenology does not have to be realized, it remains of itself of what it is. It is up for the researcher, through descriptive and interpretational analysis to “*boil down*” the heavy amounts of the collected data.

As it is expressed by Maurice Merleau-Ponty from *Phenomenology of Perception*:

*“Phenomenology is an attempt to describe the basic structures of human experience and understanding from a first person point of view, in contrast to the reflective, third person perspective that tends to dominate scientific knowledge and common sense.”* (Merleau-Ponty, 2014, 9)

### **The phenomenological application**

In relation to this report the phenomenological framework is applied as a methodological and theoretical approach towards data collection and analysis, since it is the study of the structures of experience and consciousness. (Wikimedia foundation, 2022 [2]) I believe it is the uttermost relevant approach to a research that involves conceptualisation of phenomena such as subjective topics as feelings and perceptions, since working with WHM requires intrinsic reflections when applied. The research methods for this report are primarily of phenomenological nature, meaning that most of the methods applied are generally from phenomenological frameworks, like interviews, participant observations and documentation of personal experiences. First off, the reason for application of this framework is to rather focus and understand the phenomena itself from interpretative and experiential point of view rather than descriptive. (Lester, 1999) Second off, by exploring the phenomena from an experiential point of departure, it enables me as a researcher to be more equipped to understand the user and the experience



itself, thus contributing towards more interpretive descriptions and drawing of deeper conclusions. (Lester, 1999, 1) Last but not least, the phenomenological approach served as the most appropriate framework to apply when I had engaged myself into the practice of WHM, which I did by two distinctive means; such as, group participation, where I had participated in guided 4-week course programme of learning basics WHM and personal engagement, by actively engaging myself into the individual practice of WHM on a weekly basis for a period of 1 month and journaling my personal experience.

Another central element of the research is application of reflexivity and empathy through rapport, with means of establishing trust between the WHM practitioners. The researcher and practitioner has to have good relationships for the information to flow freely, especially when practitioners are talking about sensitive topics, like something that makes them feel vulnerable or exposed. (Lester, 1999, 2) Last but not least, in order to have objective results from the research, transparency and awareness of personal bias has to be taken into account, since by application of phenomenological analysis, lots of data is not included in the report, due to the richness of the collected data.

## Chapter 15) The Techno-Anthropological Triangle

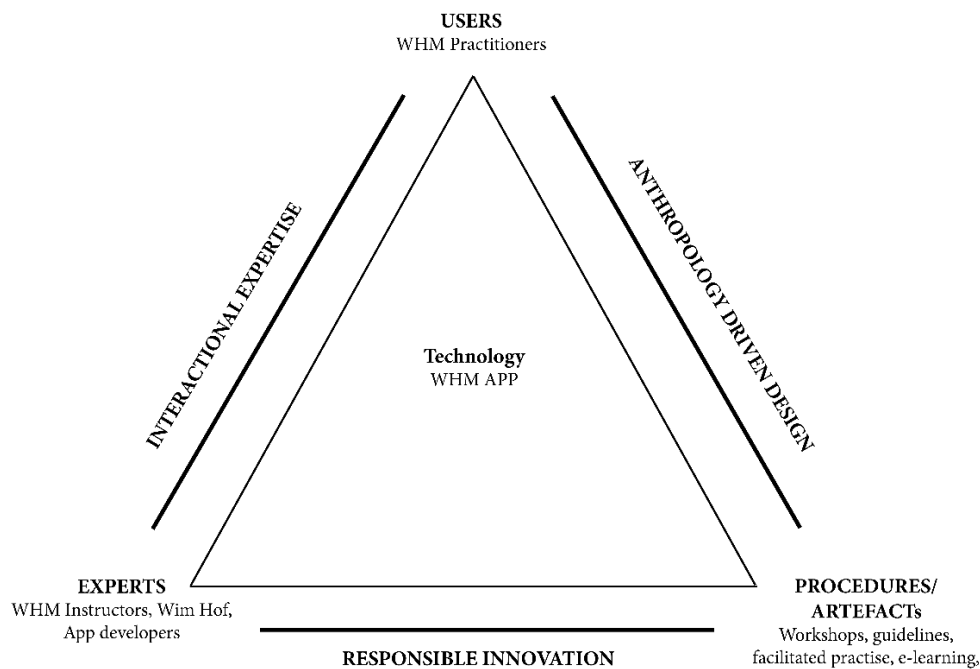
Upon starting the education in Techno-Anthropology one of the first theories we were introduced to, was the TA-triangle. It is one of the foundational tools to have for the techno-anthropologist. It was first introduced by Tom Børsen and Lars Botin in 2013. (Børsen, Botin, 2013) In the application of TA triangle it enables the researcher to explore the different domains of socio-technological configuration that might give rise to different questions to consider. In the TA triangle it places *Technology* in the middle of the triangle, where all 3 corners of the triangle represent: *The Experts*, *The Users* and *The Artifacts*.

Obviously there are three sides of the TA-triangle, like *Experts - Users*, *Users - Artifacts* and *Artifacts - Experts*. These three sides represent the different interactions between the different elements of socio-technological configuration that is in place. As it is with the different interactions on the side of the *Users - Artifacts* the interface is focused towards *Anthropology driven design* and value sensitive design, in order to have a design-oriented approach and promote innovation. (Børsen, Botin, 2013, 9) The side of *Users - Experts* is focused upon *Interactional expertise*, meaning to 'repair' lack of understanding between experts and users of the technology. (Ibid) Lastly, the *Experts - Artifacts* is focused upon *Social responsibility*, as means to ethically sensitize expert cultures to make informed decisions towards developing or optimizing technologies. (Ibid2)

In this project TA-triangle is primarily applied as supportive means towards understanding the socio-technological configuration and related areas of expertise.

Secondly, to demonstrate the different corners of the TA triangle and relate them to separate parts of the report, by establishing a holistic approach.

Thirdly, to include findings from the phenomenological insights as means to fortify and understand the different elements of sides of expertise and see if there are any assessments that need to be added.



(Illustration no 1. Representation of the TA-triangle)

## Part 4 - Unpacking the Wim Hof Method

This part of the report is part of the analysis, it introduces Wim Hof, describing his method, and briefly explaining the three foundational pillars of the WHM, which is breathing exercises, cold therapy and commitment/mindfulness and how they come together in one method. The data consists of a collection of different interviews, conversations, online material and personal experiences.

In this part of the thesis there is an argument or claim in place, that is *WHM positively affects bodies physiology*. The intention is to use this part of analysis to support this claim with different data that I had gathered throughout the research process.

## Chapter 16) Becoming ‘The Iceman’

Some people might have heard the name ‘the iceman’ by an accident, listened to some podcast or seen a tv programme where this name had appeared. This is not any regular nickname, this is a title earned by a Dutch man named Wim Hof. The reason for this nick-name is that Wim has managed to break a multitude of world records, regarding bodies exposed to extreme cold environments.

*“...he has accumulated almost 20 world records, including the longest ice bath, climbing snowy mountain peaks wearing only shorts, running marathons around the polar circle, as well as many others.”* (Hof, 2015, 5)

Furthermore he has climbed mount Everest (Thompson, 2021) only wearing shorts and shoes. His achievements have shown to truly test the limits of the human body, power of the mind and the perceived limits of physical and mental endurance.

Throughout his practice, he evolved his breathing technique, inspired by Tibetan Buddhist practices known as Tummo meditation. From Buddhist Sanskrit Tummo represents the goddess of heat and passion, from etymological perspective tummo also stands for ‘fierce woman’ and Tibetan word for ‘inner fire’. (Tummo, 2022) To put it in context tummo meditation is a yogic pranayama (focusing on breath) practice, to control bodies inner thermoregulatory mechanisms, using elements of visualization, posture and breathing. The practical application behind this practice is to regulate the body's core temperature willingly.

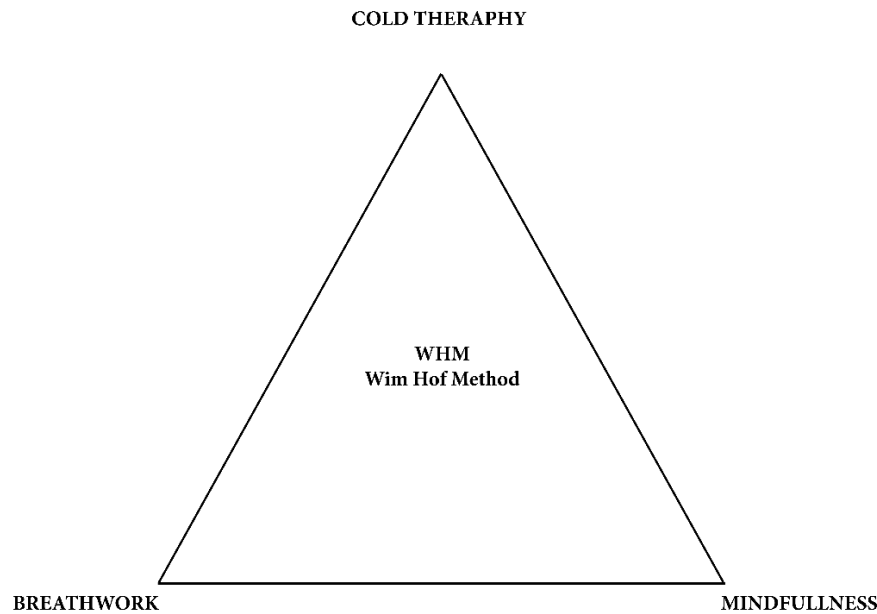
On the WHM-website (Innerfire, Science, 2018) you can find 13 scientific articles of different studies, where WHM has been applied and studied from 2007 up to present. First, Wim established the WHM with his own practice, then got everyone’s attention, proved the effectiveness of WHM to the public by setting records, since then he has been involved with the scientific community. Eventually Wim’s recognition grew and he developed what is now known as WHM.

## Chapter 17) Three pillars of the WHM

The Wim Hof Method (WHM) created by Wim and his son Enahm Hof (Wim hof, 2022) consists of three pillars, *cold therapy*, *breathing exercises* and *commitment*. When practiced accordingly, all of these elements contribute towards a multitude of physical and mental health benefits, the list of benefits is mentioned on the WHM-website (Innerfire, Benefits, 2018), it consists of 40 different benefits. Increased scientific interest in the application of WHM and science into physiology, has generated lots of new knowledge and literature, which supports health promoting qualities. The scientific acknowledgement on

the effectiveness of breathing exercises and mixed methods such as, WHM is also a relatively new field of study, which has potentially relevant applications over cross-disciplines and a variety of fields.

In order to understand the WHM in its entirety it is relevant to discuss each of the three pillars for the WHM which will be briefly introduced and explained in this chapter of the thesis.



(Illustration no 2. Three pillars of Wim Hof Method)

### **The breathing exercises**

Breathing is essential for our survival. As we are born into this world, we start it with a breath, it regulates our internal chemistry and physiology. Breathing is autonomous so it is regulated by our body's autonomic nervous system (ANS). Regular autonomic breathing could be considered as ‘unconscious breathing’, not to mean that a person has to be unconscious, but that respiration does not require mental deliberate attention.

*“The amount of oxygen that we inhale through our breathing, influences the amount of energy that is released into our body cells. On a molecular level, this progresses via various chemical and physiological processes. Breathing is the easiest and most instrumental part of the autonomic nervous system to control and navigate. In fact, the way you breathe strongly affects the chemical and physiological activities in your body.”* (Wim Hof Method, 2022,[2])

The citation above highlights the relevance of breathing as it affects our bodies on a molecular level that along the process gets transmuted into an increase of energy levels. By *consciously* breathing one can directly tap into the '*hidden potential of the breath*', it enables individuals to affect bodies internal chemistry just by breathing, especially if following a protocol. In everyday normality people tend to forget such simple lessons like that breathing is good for you and helps with stress (Aschbacher, O'Donovan, Wolkowitz, Dhabhar, Su, & Epel, 2013, 2).

Breathing consciously brings another degree of consciousness to autonomically regulated activity, that in its nature is biological necessity. *Conscious* breathing creates a level of presence in a space where there is none or little degree of presence, since it requires deliberate mental focus towards regular activity.

The difference of the perceived effects between *conscious* and *unconscious breathing* is significant, simply put by Birger (Appendix 11, 21:06) that there are three types of breathwork, such as for *relaxation*, *energy* and *balance*. Depending on the need of the practice, one can change the rhythm, time interval, speed and intensity of inhalation, exhalation and retention, these variables attribute towards different breathwork methods and techniques. So by consciously breathing, one can not only change internal physiology and chemistry, but directly affect the mental state, since all of these systems are closely related.

Application of breathing methods can be very useful for everyone, since the methods have the audacity and flexibility towards addressing personal needs and different experience levels by embodying intuitivity in the practice itself. From the practical side, WHM is easy to learn and it can be practiced anywhere. It is not necessary to have prior knowledge of the method to practice it, but it would be advantageous, especially facilitated by guided instructions.

### **The cold therapy**

*Cold exposure* can be perceived as something really uncomfortable, since it puts the body in a state of shock and for many people, the sensation of being cold is quite uncomfortable. The question might arise of why would anyone want to experience this discomfort?

It turns out that frequent exposure to cold promotes a multitude of different health benefits that positively contribute towards overall health and wellbeing. From athletes to biohackers, there is a notion of effectiveness, that cold exposure has sped up the recovery process. Therefore, these practitioners take ice baths, cold showers, cryo-chambers and other methods for recovery and a multitude of other reasons.

*“For example, scientists have found evidence that exposure to cold speeds up metabolism. Another benefit of exposing your body to cold is that it reduces inflammation, swelling, and sore muscles” (Wim Hof Method, 2022 [7])*

For most *the cold* is not easy, since the sensation of cold is an uncomfortable feeling. As a person experiences cold immersion, lungs gasp for the air and the person is trying to stabilize oneself through breathing. This happens when someone inexperienced in WHM or with no prior cold training would plunge into cold water. The WHM assists the practitioner to be prepared for a situation like this, by staying calm and regulating the breathing. There is a *mental preparedness* and *physical conditioning* that takes place after regularly practicing, as WHM calls it, *the cold therapy*. By calling it *therapy*, there is direct or indirect implication towards *cold* having ascribed qualities of health treatment and the science is catching up.

*“I really understand the power of the cold, it’s.. It can heal anything. If you give it a chance and you are consistent, not every day, but regularly. You will, I don’t know, you will heal mental physical issues or imbalances in your body.” (Appendix 10, 18:38)*

If you think of cold immersion, one has to mentally overcome the discomfort of the cold water, which is also supported with breathing. This requires full attention at the present moment and control over breathing rhythm. Irregular respiration suddenly becomes controlled. Also right after the cold immersion one starts to feel rejuvenated in the body and emotionally accomplished, since it is not something easy to do. Chemically, mentally and physically there is a reward that is received during the practice. Biochemist Dr. Rhonda Patrick explains extensively on the physiological and chemical processes, the different health benefits of sauna and cold exposure, in her presentation at *Biohacker Summit 2020*. (Patrick, Youtube, 2020) She links cold exposure to the benefit of hormonal production, like *norepinephrine*, which is a naturally occurring chemical in the body and acts as a *good stress hormone*. This *hormone* regulates how a person reacts to stress, besides many other health promoting qualities.

Cold immersion in the WHM is applied on a regular basis. Wim encourages people to take cold showers every day, to condition the body and turn the activity into habit by building the bodies tolerance towards cold by gradually increasing the time spent in the cold shower. When using WHM over a period of time one starts to *embrace the cold*, there is almost like a relationship that is formed through the practice. Cold is suddenly not so scary and not unbearable. There is almost like a personification of *cold* that is

happening, that I have heard on multiple occasions from Wim and Birger. This is how Birger describes *the cold*:

*“The cold is like Father, father, love, and the heat is like mother, yeah, well it's no bullsh\*t. Yeah, and the cold is like a mirror. It's always cold. It's only your approach. Your state of mind, your physical state. That's changed. The cold is always cold, and it's honest, just like the body. So it's the best mentor I think, and it's the father that we all needed. Honest, straight up front, always called or always the same.”*  
(Appendix 11, 18:38)

I really like the comparison of *heat* and *cold* to parental figures, because it directly talks to some deeper, more primal part of us, where the universal truth resides, for when we used to have closer relationships with these primal elements of nature. This deeper connection or notion induces a feeling of familiarity that increasingly gets recognised and appreciated from practicing the method. Throughout my own phenomenological approach, I had some days where going into cold water was very challenging and some days where it was easy. I had come to realize that besides the physical conditioning, it was the mindset that played the central role. If on the day of the cold plunge I felt more confident and aligned with myself, I would engage with the challenge at ease, almost as if looking forward with anticipation. But if I felt discouraged, then I would have more intrusive thoughts while in the water, which would interfere with my ability to stay present.

Once in a cold, there is no time to think of burdening thoughts, it is a *natural reboot button* that brings me into *forced meditation*. So as Birger says, *the cold is always cold*, in this equation *the state of mind* is the variable which always changes.

### **From commitment to mindfulness**

Every commitment starts somewhere, something like internal impulse, waiting to be activated. Depending on the personal ambitions, reaching towards a successful outcome requires some degree of willpower and discipline. In order to have achievements, there has to be investments, nothing is really handed out for free. Sometimes the personal investment requires sacrifice, figuratively speaking, meaning that for the new possibility to arise there has to be some things (habits) that have to be left behind. As an example, if ‘*I use the WHM to fix my health*’, then ‘*I have to stop smoking*’. The logic of the example is simple - *Do this, avoid this*.

In an ideal world sticking to commitment would be simple and people would not repeat destructive behavioral patterns and make poor lifestyle choices. We all know what is better for us, but we do not always act on that notion, maybe it is because we are too conditioned, too comfortable or just not ready for a change. Sometimes one gets inspired and gets engaged with eagerness to try something new, but then loses that shortly after. The duration and seriousness for commitment can vary, which depends on the individual. In a sense, commitment represents a new entry point of something into existence, and possibly even carries some mental planning and positive outcome expectancy in the mind of that person. The practice of *committing* has the same characteristics as what Husserl calls the *intentionality*, both of these approaches focus on projected action in future.

In this project I will rephrase the word ‘*commitment*’ to ‘*mindfulness*.’ There are multiple reasons for that, which I will try to explain in the following lines. Fundamental difference between the two I suppose is *mindfulness is being aware of something*, where *commitment is dedication to cause*. When practicing the WHM, it is important to be committed by being consistent with the practice in order to achieve the optimal results, but when the practitioner is indulged into practice, it is relevant to be mindful, since it implies being in a state of presence. (Mindfulness, Oxford Languages, 2022).

Mindfulness can mean many different things to different people, and it seems to capture the desired state of awareness when practicing the WHM, since it is almost an umbrella term.

Mindfulness also implies potential application towards therapeutic approach. It is the suitable state of mind when and where it is needed. As Birger describes mindfulness: “*for me it's connecting and following my gut.*” (Appendix 1, 00:13) As it is to *follow the gut*, it is just following intuition, that is physically experienced as gut feeling. Birger also mentions *connection*, then the question arises, a *connection* to what?

“*And I could just feel everything. It was like a valley and I could feel all the trees. And it was like, really, really weird. And I asked him: Wim, Why is, what is this? I feel the trees. I feel not connected but I feel I feel it. I could figure the whole thing out. Of course I didn't have any clothes on. And he said: “Hey man, that's spirituality.” I've been really trying to figure out what spirituality was, for many many years and so it's just a feeling of being connected.*” (Appendix 11, 01:06)

What Birger described is one of his experiences from participating in the weekend course with Wim Hof, where he suddenly experienced this connection that he mentioned before. He describes it as a feeling of



understanding and connectivity to living beings, which in Wims' interpretation is simply put - *spirituality*. Birger also implies that understanding spirituality has been important to him and it has been a process of unfolding. As a participant, Mette describes mindfulness, she mentions it to be a state of presence, to be fully engaged in the present moment, to have fun. The mental conditioning and state of mindfulness turns something uncomfortable like cold therapy, into fun activity.

*“To be mindful is just staying in the moment, like enjoying the moment and appreciating what's right now. Instead of chasing what could be and what should be and thoughts about how you should do things and how you should live... Yeah then I like relaxing and enjoying the breathwork and enjoying the cold showers and the cold water.”* (Appendix 12, 14:46)

The power of mindfulness with application of WHM can be very powerful towards creating the optimal settings for the exercise. Mindfulness facilitates desired state of presence with the least mental resistance, so it is easier to engage into something that is uncomfortable. There is a moment of acceptance and humbleness towards the situation. To be *mindful* requires *commitment*, so both of them are equally important and related.

To simply put, all of the elements of the WHM are equally important towards achieving the optimal beneficial outcome. In a way *breathing*, *cold therapy* and *mindfulness* implies execution towards different directions with the course of actions, yet upon closer inspection they all share the same underlying resemblance or connection. Meaning, that without controlled breathing it is impossible to stay submerged into cold water while not being mindful.

## Chapter 18) WHM - Where Tradition and Modernity meets

As we learned WHM consists of 3 different yet interconnected practices, once applied it can bring positive change towards personal health and wellbeing. All of these practices enhance the effectiveness of one another.

*“A strong mindset is essential to achieve the required concentration and focus, so that the techniques are correctly executed even in extreme situations. The breathing technique is to activate various physiological responses and will energize and strengthen the body. Furthermore, practicing the breathing technique changes the ratio between the concentration of O<sub>2</sub> and CO<sub>2</sub>- levels; the CO<sub>2</sub>-concentration will*

*significantly decrease. Balancing this correlation will optimize the functions of the body. At the same time, they can activate or ease down the immune system. Ultimately, on exposure to cold (such as ice), the physiological effects are even stronger” (Hof, 2015, 21)*

WHM has a strong foundation in *traditional practices*, like *breathing*, *cold exposure* and *mindfulness*, that are combined in an integrated approach to facilitate the practical application of the method. Besides these advancements, WHM is constantly being developed through experimental application and personalisation, as a more modern way of practicing method would be via WHM app.

### **The Traditional side of the method**

Wim has brought forward traditional practice into a modern setting. He learned of its effectiveness through application and self-experimentation. His method is a *hybrid embodiment* of *tradition* and *modernity*. He has developed a method that taps into the deep subconscious primal side of human experience, which when experienced ascribes quality of familiarity. As James Nestor, an award winning journalist and author of book *Breath: The new science of lost art*, had said: “*Breathing is an anchor to all of the different systems to the body.*” (Nestor, 2022) Birger describes breathing and the WHM:

*“It has probably been around for thousands of years for a reason(...) So definitely it is ancient. And Wim has just explored the markets and found out what works the best and put it in a frame called WHM.”* (Appendix 11, 01:44)

There has to be good reasons on why the tradition has survived and is practiced around the world. When people practice the WHM for the first time and get immediate results, they do not understand how something so simple can be so effective.

The method is tailored modern, neat, easy to apply and it establishes the connection between mind and body, by making them work together. This connection between *mind* and *body* is regulated by *the vagus nerve*, which connects and regulates different organ systems. It is like a highway *in the body* connecting together these separate systems. So the connection is not only experiential, but physical. (Breit, Kupferberg, Rogler, & Hasler, 2018)

It is not only about moving forward, but also about listening to your body and knowing when to stop, like a healthy counter balance between stress and rest. Besides the physical and measurable benefits of the WHM, there is also the mystical side of the experience, like personification of different phenomena, *auditory* and *visual stimulations*, and *alterations in consciousness*.

For some, auditory and visual stimulation is something that is experienced while being in a deep state of relaxation during the breath retention, what could be described as a state of presence. Suddenly, there is another world that opens up, an internal world full of mystical experiences, once the awareness gets changed.

It reminds me of some of the concepts from the field of shamanic anthropology, where the role of shaman (practitioner) in a ritual setting, by ingestion of psychoactive substances or other means is to exchange information through interaction with spirits. In the shamanic practices (Dioszegi, 2022) *everything in existence has a spirit*, similarly in *animism*, which supports the idea that *every natural being in the universe has a soul*. (Animism, 2022) Through the personification of natural phenomena, there are some qualities that get imposed on the mentally projected outcome. The idea of something distant, becomes more acceptable and familiar. Maybe there is even some level of embodiment that takes place while in the experience, like the idea of becoming the experience itself or like in *Tummo* breathing channeling connection with *the fire Goddess*. Something that seemed far out is suddenly in a close reach and it re-connects one with that long forgotten primal feeling, which can sometimes be experienced through different high points in life.

### **The Modern side of the method**

*“The growing prevalence of chronic lifestyle diseases across the globe is one of the key factors driving the growth of the market. (...) This has encouraged the masses to adopt various healthcare activities, including yoga, meditation and athletics. Furthermore, the emerging trend of using wearable devices, such as fitness bands and trackers, is also providing a boost to the market growth”* (IMARC Group, 2022)

As global events have shaken the world and increased stress levels, there is a natural response towards wellness promoting activities. People have started to look into different ways on how to deal with their problems for a multitude of reasons.

With progression in the wellness industry there are also technological advancements that are developed to satisfy certain needs of the wellness customer, primarily: better health, better sleep, better mindfulness, just to name a few. Besides all the traditional methods that are available, there is a growing market towards digital and wearable technologies. Some of the examples are meditation apps, body tracking

devices and performance enhancing technologies. The levels of technological personification and optimisation of the individual practice is increasingly surprising.

Wim and his *Innerfire* team has developed the Wim Hof Method app, as it is said on the website - *the ultimate companion to your practice*. (Wim Hof Method, 2022 [3]) The WHM app can be very useful and offers a variety of free and paid features. The WHM app brings all the necessary information and practical application in one place. For someone that does not know anything about the WHM, the app is the perfect place to start to learn the practical side and theoretical side of WHM. The App is free of charge and can easily fulfill anyone's basic needs and expectations for a certain time period, when practicing the WHM. Subscribing to the paid version of WHM app, offers additional options towards personalisation, community access, more information and extra functionality. The WHM app is designed to facilitate and assist people with their WHM practice. From my own practice, one of the useful features is the option towards personalisation of breathing exercises, it gives a variety of variables that can be changed to fit any personal needs.

Some of the app's free features include instructional videos for breathing, cold and yoga exercises, stopwatch feature for timing, interactive calendar, badge reward system (gamification) and several free guided breathing sessions, so it is a good place to start, even without the paid subscription. (Wim Hof Method, 2022 [3]) The free version of WHM app provides customers with the essential information about the WHM and offers them *multifunctional applications* for the technology in their everyday practice. The app's layout is simple and intuitive, it is easy to use and the app is constantly being optimized. One of the more recent updates is that the WHM app can be paired with the Apple watch. This opens up a new technological dimension towards the quantified self movement, which is movement of people incorporating technology in their everyday practice for tracking, to improve their physical and mental performance. (Wikimedia Foundation, 2022 [1])

In another way, WHM meets modernity through all the different digital technologies, since those are the channels where the information travels through. As someone might think, to find out about a technique such as WHM and being able to learn it through guided instructions, is something very much as normality. IT and digital technologies have become an integrated part of our daily lifestyles and we rely on these systems in a modern society. Anyone is suddenly able to share information that used to be exclusive only to the few lucky practitioners. The digital social space where practitioners meet can vary, some of the options are various online forums, like Reddit and 4chan, different WHM communities on *Facebook*, *WHM community* and others. All of a sudden anyone can explore and learn so much about the

WHM through people's accounts, testimonies, different guided sessions and many sources of information channels. People not only start to make responsible personal choices, but start to organize through shared vision.

There are different ways people use technology during their practice, some might use guided breathwork sessions from *Youtube*, or use the *WHM app* to register and track processes, connect with the community or simply use the Internet to find various information about the method. WHM has its roots in traditional practice and uses technology to sharpen and optimize their product experience. Scientific findings are used to constantly improve and develop the method itself, where technology is primarily used to share knowledge and optimize the experience.

## Chapter 19) The Good stress VS Bad stress

The external dynamics of the world affects the inner workings of the body. Human body acts in constant response from external stimulation and tries to keep its balance with *homeostasis*. As it is defined by *Britannica Dictionary*, *homeostasis is any self-regulating process by which an organism tends to maintain stability while adjusting to conditions that are best for its survival*. (Britannica, 2022).

In every healthy organism homeostasis is working optimally towards preserving the internal physiological processes, because if it fails, the living organism is compromised and eventually dies. There is a constant fluctuation in the bodily system between the equilibrium of the external influence and balance to be achieved. These external influences, that can come in a variety of forms many times, get translated to negative and unwanted stress.

Everyone is familiar with stress and have experienced some level of stress in their lives, but for some if not dealt with it can contribute towards a variety of health implications. People differ with their tolerance to stress, yet everyone is regulated by the same physiological processes. Stress response in the body is regulated by the *autonomic nervous system* (ANS), so it is done automatically based on the body's prior conditioning to the external stressors. (Aschbacher, O'Donovan, Wolkowitz, Dhabhar, Su, & Epel, 2013, 2) Simply put stress is the body's natural reaction to physical, emotional and mental change.

Usually the term '*stress*' carries negative connotation, but there is a distinction to be made, between good stress and bad stress. *Good stress* also known as *eustress* is a *short time stress* to the body, like a physical

exercise. (Eustress, 2022) By repeatedly exposing oneself to eustress, the body recovers and over a period of time benefits from the resistance that it builds against the stressor

*“The first evidence that low-to-moderate doses of stress may have beneficial effects (“eustress”) emerged over a century ago as an “inverted U” relationship between arousal and performance (Yerkes and Dodson, 1908) “ (Aschbacher, O’Donovan, Wolkowitz, Dhabhar, Su, & Epel, 2013, 2)*

The citation above marks the start for coining the term *eustress* by compartmentalizing it from the term stress and recognising the positive effects of eustress. This established the modern foundation for recognition and distinction between positive stress and negative stress.

Then there is the bad stress also recognised as ***distress***, *chronic stress* or *oxidative stress*. This is the unplanned stress that is experienced as negative emotions. It is also more difficult for a body to recover from distress than from eustress. (Eustress, 2022) Distress is also associated with psychological and mental activities since it is an unplanned form of stress that can occur unexpectedly.

*“The Free Radical Theory of Aging (Harman, 1956) proposed that accumulation of oxidative damage over time causes cellular aging and contributes to the onset of age-related disease. This implies that it might be possible to slow the physical and cognitive decline associated with aging by mitigating oxidative damage. While oxidative damage is not the sole cause of biological aging, it is widely believed to be an important player in the aging process” (Aschbacher, O’Donovan, Wolkowitz, Dhabhar, Su, & Epel, 2013, 2)*

By following Harman’s theory on aging it proposes that over a certain period of time, oxidative damage accelerates the aging process in the body. In the same research there are many other highlights on oxidative damage markers being associated with different age-related diseases. Distress is associated with increased levels of oxidative damage in the cells that is closely linked with biological aging.

*“Oxidative stress appears to contribute to biological aging (Muller et al., 2007), and the biological signatures of oxidative damage are elevated in age-related diseases, such as neurodegenerative, metabolic, cardiovascular conditions and cancer.” (Aschbacher, O’Donovan, Wolkowitz, Dhabhar, Su, & Epel, 2013, 3)*

To simply put oxidative stress reflects the cellular imbalance in the body and it accelerates the biological aging process. Therefore for the optimisation of personal wellbeing, it is relevant to consider reducing the oxidative stress levels in everyday life.

It is necessary to understand the general distinctions between the eustress and distress, which I have tried to illustrate in the table below, by primary analyzing the research paper of *Good Stress, Bad Stress and Oxidative Stress: Insights from Anticipatory Cortisol Reactivity*, and then highlighting key differences for both of the stresses.

<b><i>Eustress - The good stress</i></b>	<b><i>Distress - The bad stress</i></b>
Builds stress resistance in the body	Creates negative, overwhelming emotions
Shorter recovery time for body	Longer recovery time for body
Conscious activity - done by individual	Unconscious activity - happens to individual
Low markers on oxidative damage	high markers of oxidative damage
Lowered levels of cortisol	increased levels of cortisol (due to anticipation)
Positively attributes to longevity	contributes towards biological aging

The information from this table creates a clear distinction for the contrasting nature for both - *positive* and *negative* stress response mechanisms, and shows the general differences between them. Both of the stresses are almost opposites within the same spectrum.

Following healthy advice there is a necessity of optimizing individual stress response for improved reaction towards external stressors. The internal processing of stress response in the body is closely linked with prior physical and mental conditioning through activities promoting wellbeing.

In a way stress can be seen as an internal part of human physiology and coping with external stressors, where the body, through the process of homeostasis, adopts and tries to restore its inner balance. By physically conditioning bodies' response through *eustress*, one builds higher oxidative stress tolerance towards *distress*.

## Chapter 20) Importance of the mindset

During the period of my thesis, I have been trying to figure out what constitutes a good mindset and how important it is, when engaging in the practice of WHM. Prior to exploration of this phenomena I was aware of the importance of good mindset in everyday normality and especially when committing to the WHM on a regular basis. It helps in stressful situations, elevates the pressure and brings forward a sustainable mental framework that supports the experience.

The idea of a *good mindset* comes into play when working towards self improvement, changing a habit, committing to something or pretty much anything that is mentally enduring. Good mindset indicates invisible, hidden action(s) of preparedness towards desirable outcome and prior conditioning towards mental optimisation. It implies a state of *being* or degree of *consciousness* that can have to it embodied set of qualities, like *optimism*, *openness*, *inspiration*, *curiosity* and *preparedness*. The subjective representation of the entirety of good mindset, is not portraying the full spectrum of the phenomena. Through phenomenological introspection of my own experience and particiaptns, these are some of the distinctive key qualities that I considerably recognise to be essential to form a sufficient and foundational explanation of the meaning that is portrayed.

With establishing a common ground for a characterisation of good mindset, there are further assessments to be made. Like further explanations from introspective analysis of the key qualities of a good mindset, which are:

1. ***Optimism*** represents a mental state that is hopeful and confident of successful outcome expectancy. Positive approach to life situations can be very beneficial when enduring and coping with stressful situations that sometimes involve contemplation of future events. Optimism is like being effortless in a presence of heavy density. It enables one to push through hardships of life with mental ease and pursue challenges with adequacy and grace.
2. ***Openness*** to new experiences and ideas. Also as something that ascribes quality and ability of receiving. To be open, requires to be vulnerable and to feel safe at the same time.
3. ***Inspiration*** represents internal force that is triggered through stimulation of perceived beauty accompanied by emotionally overwhelming intensity. Inspiration is almost the driving force behind the creative endeavors, *the spark that starts fire*.



4. **Curiosity** is almost a prerequisite towards a good healthy mindset. It serves as an intellectual mental vehicle, because the lead takes persona through ‘places’ propelled by desire to know more.
5. **Preparedness** ascribes to the quality of prior conditioning or discipline that has been experienced in forming the healthy mindset. It is about learning from personal experiences and applying that knowledge at the necessary moment. It is like being mentally resourceful.

I consider this set of qualities important when pursuing the intended goal, since they are what constitute a good mindset, based on my interpretative understanding. Certainly the intensity of each quality differs based on the individual, yet all of these qualities reside somewhere in the matrix of good mindset. During the Interviews with Birger, he mentioned that openness and curiosity is one of the most common qualities WHM instructors have in-common. (Appendix 11, 15:39)

For example, during the 4week course I met different participants that had qualities of optimism and curiosity radiating from them. People become more engaged and interested in the different aspects of the WHM, they are inspired towards taking action. Some of the participants have desperately been looking for remedy to their problems, that are mental and physical in their nature. In their pursuit for remedy, they have kept an *optimistic attitude* towards emerging future possibilities and *openness* towards new influences.

As it is from Wim’s and Birger’s story their personal experiences, discoveries and progression is an inseparable part of their journey of *becoming*. The totality of their experiences could be represented as their individual roadmap towards their personal journey of becoming.

*“I think curiosity is the prerequisite for becoming. Anything that is not within your lifespan. Hmm, it's like you're not downloading your parents path, you know you're doing something else. Yeah, breaking the habit, breaking the generation, breaking the path.”* (Appendix 11, 06:02)

The proper mindset is quite important when engaging in new endeavors like WHM, it supports the mental and biological healing process, increases personal confidence and transforms challenges into opportunities. When being devoted and engaged in the process with a healthy attitude, practice of WHM turns into a little journey of self discovery. Suddenly something impossible is not so impossible anymore.

*“You don't need any prerequisites. You don't need to be fit or anything you will. You will become mindful, you will become fit from the inside out. The most important thing, the cardiovascular system and your ability to change your state of mind.”* (Appendix 11, 04:41)

For example, a study on *positive outcome expectancy* (Van Middendorp, Kox, Pickkers, Evers, 2015) in the participants, when using the WHM, suggests that having a *positive* or *negative attitude* towards outcome expectancies affects the stress and immune system response in the body. This experiment had 24 participants, who were divided into 2 groups of people. One group had prior WHM training for 4 days where the other group had no prior preparations. Both of the groups were injected with *endotoxin - Escherichia coli*, that causes flu-like symptoms 90 minutes after the injection. The trained group applied the Wim Hof breathing method 30 minutes prior to injection and after the injection, this drastically reduced the endotoxin's effects on participant bodies.

*“The results found for generalized outcome expectancies of optimism are in line with previous studies demonstrating an association between optimism and both stress and immune system functioning e.g., [18–20].“* (Van Middendorp, Kox, Pickkers, Evers, 2015, 1084)

By having a *positive attitude* towards the task and its outcome, creates a better stress response in the body and makes the task perceivably easier to the subject. These findings indicate parallels and connections between state homeostasis and state of awareness of a good mindset. In a state of homeostasis the living organism is in its optimal conditions, so it thrives, the same notion can be applied to a healthy mindset. The recognition of body and mind being interconnected is an old notion, like the saying ‘*Mens sana in corpore sano*’, which means ‘*a healthy mind in a healthy body*’, which was coined by the Roman poet Juvenal who was born in 55 AD. (Hutchens, 2022)

To sum up, practicing WHM with a *good mindset* can be very beneficial, because it assists the practitioner with the right mental attitude towards positive outcome expectancy. It enables individuals to be more efficient in the practice and directly influence their results and physiological processes, depending on the negative or positive polarity of mind. This empowerment starts as a mental activity that is a natural and integrated part of personal growth and aspect of becoming. Sometimes all that is necessary is one *step-forward*, since that can mark the start of a transformational journey towards self development.

## Part 5 - Understanding the practice

In this part of the analysis the reader is introduced to the individual and group practice of the WHM, the different breathing protocols presented by Birger from the workshops, facilitation methods and their role during the practice. Most of the data for this part of analysis is based on observations and interviews. In this part of the thesis the argument or claim in place is that *the experience of breathwork practice changes when practiced individually or in a group*, where also in this part of the report the *role of digital technologies* will be accounted with their relations to the individual practice of WHM. The aim is to identify different elements that constitute for individual and group practice and see their relations to digital technologies.

### Chapter 21) The Technical side of Breathing protocols

During the time period of the 4-week WHM course all of the participants were taught and practiced the Wim Hof breathing method (WHBM) together and individually. Eventually, as the course progressed the participants were introduced to different breathing methods instructed by Birger. He explained how different methods are useful for different things, such as the three general themes for breathwork application: to *energize*, to *relax* and to *balance*. As he explained the differences between energizing, relaxation and balanced breathing is the *inhalation* and *exhalation* time. Simply put, if a practitioner wants to use breathing to feel more *energized*, then *inhale* should be *longer* than *exhale*, if practitioner wants to feel *relaxed*, then *inhale* should be *shorter* than *exhale*, if the breathwork should be balanced then *inhale* and *exhale* are the *same length*. To put it in simplified perspective the length of inhale and exhale releases the *carbon dioxide* saturation level in blood, that lowers the urge to breathe, this directly affects our physiology and internal chemistry. (Wim Hof Method, 2022 [2])

This enables practitioners to change the inhalation and exhalation span to customize their practice, by altering the effects and the perceived experience. Understandably, there are multiple other variables that are involved with the different breathing methods, like deliberately breathing through nose, different postures, changing the breathing rhythm, change of focus, retention time and visualization.

In order to have a better overview of each method that was introduced, I have made a short list of abbreviations for the different activities involving the different breathing methods. By having these abbreviations, it enables a better overview of the different breathing methods that will be explained further.

**BI** - *breath in*,                      **R** - *(breath) retention*,  
**BO** - *breath out*,                      **V** - *visualization*,                      **RB** - *recovery breath*.

### **Wim Hof Breathing Method**

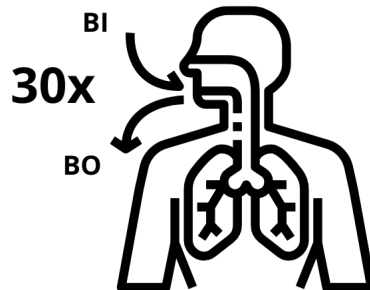
WHBM was the method used the most during the 4-week course. It has been the foundation for our breathwork practices, since it was introduced, practiced and discussed the most during the workshop sessions. It is relatively simple to learn and apply. It is recommended to practice the WHM in the mornings and before having meals, that is when it is the most effective. To practice the WHM there are four simple steps that should be followed. (Wim Hof Method, 2022 [2]) The steps are as follows:

1. Get into a comfortable position either lying or sitting and close your eyes.
2. Take 30-40 breaths. Be present, focus on the breath, inhale through nose or mouth and exhale through mouth. Let the breath be unforced. **(BI - BO)**
3. Breath retention. After taking the last breath, exhale all the oxygen and stop breathing. Lay like this until there is an urge for breath. **(R)**
4. Recovery breath. When the urge to breath-in arrives, draw in one big breath to fill up the belly and lungs. Then hold this breath for 15 seconds and after that breath-out. **(RB (hold 15 sec))**

WHBM —> **(30x(BI - BO) + R + RB (hold 15 sec))** - one session of WHBM

Normally the whole breathwork session would consist of 3-4 sets of WHBM, it can differ with the intensity and speed of the inhalation and exhalation, and the amount of sets. Out of the three methods mentioned, WHBM requires the most time to practice and brings one into deeper states of consciousness.

**WHBM —> (30x(BI - BO) + R + RB (hold 15 sec))**  
**one session of WHBM**



**BI** Breath-in    **BO** Breath-out    **R** Retention

**RB** Recovery Breath

(Illustration no 3. Wim Hof Breathing Method)

### **Box breathing**

Box breathing is another breathing method that got introduced to the 4-week course practitioners, during the 3rd workshop. (Appendix 1,7) Birger mentioned how box breathing was developed by Navy SEALs, to help these special operations soldiers by having a stress management tool in stressful situations. This method is very simple, effective and flexible.

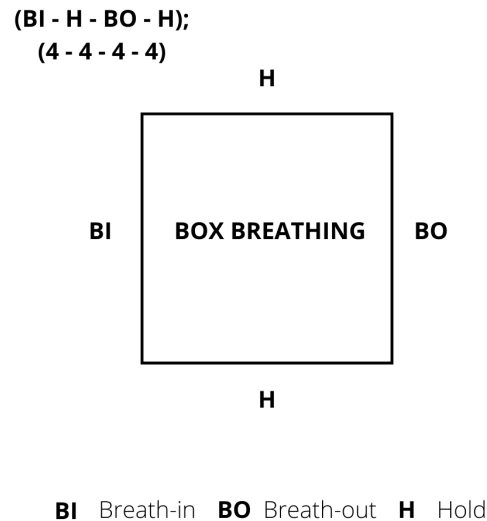
The steps are as follows (Stinson, 2018):

1. Get into a comfortable position either lying or sitting and close your eyes.
2. Breathe in through your nose while counting to four slowly. Feel the air enter your lungs. **(BI)**
3. Hold your breath inside while counting slowly to four. Try not to clamp your mouth or nose shut. Simply avoid inhaling or exhaling for 4 seconds. **(H)**
4. Begin to slowly exhale for 4 seconds. **(BO)**
5. Upon exhaling, hold the breath for 4 seconds. **(H)**

Repeat steps 2 to 5 at least three times. Ideally, repeat the four steps for 4 minutes, or until calm returns.

Box Breathing —> **(BI - H - BO - H); (4 - 4 - 4 - 4)**

The time interval in the Box breathing can be changed depending on the advancement level, like instead of 4 seconds it can also be 6 seconds. This method is a little bit more flexible in its application from the WHBM, because it does not require the practitioner to have long breath retention times and it can be practiced anytime and anywhere.



(Illustration no 4. Box Breathing)

### SOS breathing

This breathing method was developed by Birger as a means to give a strong boost in moments of crisis, when there is no time for longer breathwork sessions. It can take only 1 minute to reach the desired state, it is like a quick remedy in a situation of distress. It is a combination of different techniques, in short, tangible methods.

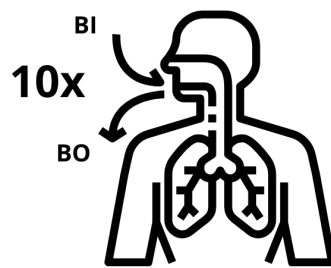
The steps are as follows:

1. Get into a comfortable sitting position with your back straight and close your eyes.
2. *Breath in* through the nose, relax the body (shoulders), sit with the legs crossed. Upon *inhaling*, push the air into the stomach and up to lungs. **(BI)**
3. *Breath out* through your mouth. **(BO)**
4. Into the last 3-5 inhalations visualize and push the oxygen up to your pineal gland (place the focus between eyebrows). **(V)**

SOS breathing —> ( BI - BO - V)

This breathwork method employs some of the mixed elements from other methods. In comparison to WHBM and Box breathing it takes the least time to get the immediate results. The biggest difference is that it uses a little bit of visualization, when pushing up the oxygen between the eyebrows. It is a quick fix to stabilize and center oneself.

**SOS breathing —> ( BI - BO - V)**



**BO** Breath-out    **BI** Breath-in    **V** Visualisation

(Illustration no 5. SOS Breathing)

## Chapter 22) Individual and Group practice

There are two ways how someone can practice the WHM, either as *group* or *individual* practice. Understandably there are different embodiments and dynamics for both the individual and the group practices, like some of the collaborative aspects of digital technology.

The main difference between the individual and group practices is the amount of people involved in the practice. Understandably the *baseline*, which consist of breathing protocols, and *the point of departure* for individual and group practices are the same. The breathing protocol stays consistent between group and individual practice in its instructions. In order to have a better understanding of the different dynamics on both of the practices it is relevant to have a closer inspection.

Something that is considered as *individual practice* in the context of this report resembles any type of practice that is done while *being alone*. When practiced individually a person decides on some of the variables to their preference, like the amount of breaths, intensity of breaths and the speed of the exercise. The preferences between individual and group practices differ from person to person. Some practitioners have mentioned how individual practice helps them to *reach deeper states of consciousness* and that it is their 'alone time' during the day. In the individual practice the practitioner decides upon all the different variables, so in a sense, there is more *freedom of choice*.

The individual practice can also have a variety of *technological mediations*, such as with the *WHM app*, *pre-recorded guided sessions* and *different technologies* to assist the experience. Based on my findings, after a certain period of time of practicing WHM, one commonality between some of the more serious practitioners is that the individual practice gets personalized based on their personal needs. It is done through application of certain elements from different methods and techniques, like the *SOS breathing*. So in a way through personal practice individuals can potentially optimize their method through self experimentation and fusion of different technologies.

As it is with group *practice* it would happen in a group of people from two to more, normally facilitated with guided instructions. As a prerequisite for group practice would definitely be the *guidance*, either through *digital technologies* or done by *instructor*, which is normally accompanied by *special music*. For this thesis, the participation in the group practice happened physically, accompanied by WHM instructor Birger. The group practice has many variables that potentially affect the individual/internal process of the perceived experience. One of these variables is the group size that can further be compartmentalized in different sections, like *small*, *medium* and *large*. The size of the group can affect the individual and the collective experience in many possible directions, that also depends on the individual constitution of each practitioner. For some, practicing in a small *group* is more comfortable than in a *large group*, for some others it is the opposite. The quality of the workshop is very *subjective*, because it relies on many individual variables from the practitioner, that has a sense of inscribed importance. Most of the practitioners felt the sense of *camaraderie* and *empowerment* while in the group practice, where others had hard time *opening-up* and *not getting distracted* by other practitioners.

Recognisably the one of commonalities that stays the same between *individual* and *group* practice is the *internal emotional processes* and *physiological processes* that takes place within the body. Both of the applications for the WHM are equally relevant, because they enable the practitioner to build up their personal practice through diversity and flexibility.



## Chapter 23) Advantages and Disadvantages between practices

Upon closer inspection of the individual practice and the group practice, there are certain advantages and disadvantages for both of them. These findings are based from conversations with the WHM practitioners, who have been exposed to both ways of practicing and my personal experience while practicing the WHM. In this context, *advantages* are the qualities that favors the practice, whereas *disadvantages* are the qualities that discourages the practice. These findings are related to the practice of the WHM and do not concern the other breathing protocols introduced in this chapter.

### **The Individual practice**

First off I will explain the *advantages* and *disadvantages* of the *individual* practice, supported with short explanations. Some of the *advantages* of the individual practices are: *establishing habit, application of mixed methods, comfort and privacy* and *ability to reach deep states*. Reasonably there are more possible advantages when practicing the method alone, and these advantages do not represent or intend to represent the totality of the experience, but rather the fractions that recurred as repeating themes from the different practitioners. (Appendix 6) This is further elaboration on some of the *advantages of individual practice* that needs explanation.

- *Application of mixed methods* - through personal experience and experimentation practitioner involves and changes some of the elements in their daily practice. Practice also is supported with means of *digital technology*, such as WHM APP, different tracking devices and audio/video guidance.

- *Comfort and privacy* - This enables a practitioner of his choosing to easily practice WHM anywhere, where the practitioner feels comfortable and safe.

- *Reaching deeper states* - As for some of the practitioners, including myself practicing individually had allowed myself to go deeper into experience and have stronger personal impact.

Some of the *disadvantages* of individual practices are: *necessity for mental focus* and *lack of energy*. In order to get a better understanding of the meaning, the explanation of disadvantages as follows:

- *Necessity for mental focus* - in order for an individual to be successful and practice WHM, the person has to have an abundance of mental focus towards desired outcome to reach their optimal results. If the person loses their mental focus, they are likely to stop the practice.

- *Lack of energy* - When engaging in a new habit like the WHM, there are days where the practice requires more energy than is available at that time.

It appears that most of the disadvantages from the individual practices are related towards something lacking in personal characteristics, regarding the mental and physical conditioning. So considerably the amount of advantages outweighs the disadvantages.

### **The Group practice**

The explanations of the *group practice* will follow the same structure that was applied to individual practice. Some of the *advantages* are as follows: *collective empowerment, social dimension, guided facilitation, reinforcement of people's experiences* and others. From all of the different findings, there is a decision of including and highlighting the most conceptually capturing advantages. The further explanations as follows:

- *Collective empowerment* - For most participants some degree of empowerment is experienced through collective activities, like immersing in the cold water. People are encouraging each other with words and with their actions.

- *Social dimension* - Sometimes it is more fun for people to practice together since it requires some level of social interaction between each other.

- *Guided facilitation* - participants do not have to worry about anything, they are just following guided instructions by the instructor, which is normally accompanied by music. This takes away some level of personal responsibility and enables participants to fully engage into experience. This also enables participants to learn the basics of WHM with supported guidance and necessary safety measures.

- *Reinforcement of people's experiences* - this enables participants to share their experiences with one another. The testimonies encourage other participants to stay engaged and learn more about the practice from other peoples experiences.

These are some of the advantages when practicing in a group. When working together in a group the solidarity and comfort levels of a group can encourage other participants towards positive outcome expectancy. It is like everyone in a group has their own individual goal, but the participants collectively have their *unified goal*, like to have the breathwork session together and immerse in the cold water.

Some of the *disadvantages* for group practice are: *personal distractions and discomfort, size of the group and the need for facilitation*. The following is short elaboration on the different findings:

- *Personal distractions and discomfort* is something that can affect anyone while being in practice. People sometimes get distracted with other people's actions rather than focusing on their own practice, like *breathing loudly* or even *snoring*, which can distract the practitioners from their own practice. Hearing other peoples sounds is quite common in the workshop experience. Discomfort would imply that, sometimes practitioners feel this type of emotion when together with strangers, especially since the practice of WHM requires some level of vulnerability.

- *Size of the group* - This is quite subjective and can be considered both as an advantage and disadvantage depending on the different programmes or workshops. The group size affects many different variables, like instructors ability to deal with larger groups, ability to communicate the information to practitioners, necessity to stay present and comfort levels in practitioners.

As practitioner Mette says: “ ...*Then some people open up more as well. If you're not together as many and I think actually there was this mother who had her son with her, and he was really, really shy. So I think it would have been good for him if we weren't as many.*” (Appendix 12, 30:41)

- *Need for facilitation* - In order to practice the WHM, there is always a sort of need to a lesser or higher degree towards facilitation of the practice, that is determined by the facilitator of the experience. The dynamics of physical facilitation differ with online workshops, since people can have their practice supported with digital technologies while being at the comfort of their home. This sometimes requires certain access to specific artifacts that support the facilitation.

As mentioned above some of the different disadvantages appear to be closely linked with facilitation of the experience. Understandably the individual constitution is also relevant, because some people feel more insecure than others, this can induce some level of discomfort in the practitioners and avoid them

from fully opening up. Nevertheless, the advantages of practicing in groups supports the practitioners towards positive actions, by active encouragement and empowerment through collective activities.

### **Finding the soft spot**

Reasonably both of the practices - *individual* and *group*, have their advantages and disadvantages when introspective and compared to one another. The strongest most common influence between both practices would be the *personal constitution*, like the mindset, prior training, energy levels and beliefs, which fundamentally contribute towards *stress response*. Everything springs out from here and influences the practitioner's experience. Notably the individual practice is the 'fertile ground' and the starting point towards establishing the personal foundation towards WHM, which can easily be mixed with digital technologies, like the WHM app. The individual practice is very flexible, because all the different variables are decided and influenced by the practitioner. Besides all the advantages, there is a small downside, like practitioners sometimes lose their motivation if not being reinforced to practice the WHM.

Where the group practice has an overarching theme that individual practice lacks, that is the *social dimension*. By turning the WHM into social activity can strongly benefit the practitioner towards empowerment and create the practice itself as a fun experience. Another central advantage in group practice is that the practice is facilitated, so practitioners can fully immerse themselves in the experience by following the guidance of the instructor.

As the biggest disadvantage for the physical group practice is *large group size*, this is mostly determined by the instructors mental capacity to facilitate the experience. What is important to have a distinction between long term engagements, like a 4-week course and short term, like a workshop. The relevance of the group size in the short and long term engagement affects practitioners differently. If the group is too big, there can be a lack of intimacy and trust between participants, which is important for the group's dynamics and openness to share their experiences.

There are many different variables that are involved in both of these approaches, but nevertheless individual and group practice supports each other. By mixing together these methods practitioners can get the *best of the both worlds*. As one of the practitioner from the 4-week course mentioned:

*"She compares the group practice and the individual practice and says how she loves both. At the same time, in the group practice the whole energy and dynamics of group practicing something together can be very empowering and in the individual practice, she has managed to get the most deepest, profound experiences."* (Appendix 6, 2)

## Chapter 24) Role of facilitation

The importance and the degree of facilitation differs between the individual practice and the group practice. During the individual practice practitioner is responsible for their own facilitation, where in the group practice it is the facilitators responsibility. The understanding of practical application of the WHM is very beneficial if introduced by someone that has already practiced the method.

The part of the method that could require some guidance is the *breathing exercise* and *cold exposure*, especially if the practitioner is new to the routine of the WHM. The guidance can be differentiated through *physical* and *online* guidance. *Physical guidance* preferably can be facilitated with a workshop by one of the numerous WHM instructors, that are available from around the world, or someone that has been practicing WHM. The *online guidance* is facilitated via *digital technologies*, such as guided videos, WHM video course and the WHM app. Upon quick Internet search (Youtube and Google), one can find a multitude of different materials available online for education and facilitation.

### **Facilitation by certified WHM instructor**

The facilitation of practice is quite important since it eases the difficulty of perceived experience, supports the experience with information and practical application and increases the practitioners chances of achieving their optimal results. In the case of the *4-week course* and *workshops* good facilitation is a must. The instructor determines and is responsible for every aspect of the programme and has the right qualifications to do so.

To become certified WHM instructor one is required to join the *WHM Academy*, and successfully complete the Academy programme, which consists of three modules - *Online Fundamentals course*, *Instructor video course* and *5-day physical training*. (Wim Hof Method, 2022 [1]) There are also few requirements upon joining the WHM Academy as well as legal incentives. When someone becomes a WHM instructor, they represent the WHM brand, so there is a set of guidelines and rules to follow. Each instructor is different from one another, since they have different backgrounds and their personal journeys of becoming instructors.

Through fortunate circumstances I managed to establish collaboration with certified WHM Level 2 instructor Birger Hanzen, who has been WHM instructor since 2019. (Appendix 9, 13:07) He is currently the only certified WHM instructor that resides in Denmark, he has facilitated around 100 workshops and has been part of Danish TV programmes. (Appendix 9, 15:17)

Birger has a central *role in the facilitation* of the different workshops and the 4-week course. He serves as the *link between practical application and scientific understanding* of the WHM. People see Birger as authority and mediator during the workshops, since he is responsible for bridging the scientific and practical knowledge to all of the participants. He is also the facilitator and mediator of the WHM practice and the authority during the workshop. He steers the group in any direction, that is appropriate and fits the general agenda. Birger's mood can also influence the whole discourse of the workshop experience, nevertheless Birger has managed to stay professional and very composed. (Appendix 1, 1)

He embodies humbleness and qualities of being a leader, especially during the practice. Birger has to constantly think of ways to optimize and facilitate the workshop experience for everyone, communicate scientific knowledge, answer peoples questions, encourage and inspire people, improve his brand and communication. The cornerstone of his practice is the WHM, where he also applies a cross-mix of different breathwork methods as mentioned earlier in this chapter. He is also a big supporter of the SOMA breathwork and employs some of the elements into his teachings, like visualization and music that is specially produced to create a rhythmic breathing for the practitioners.

Birger offers a wide range of possibilities for everyone, like *private 1:1 sessions, online workshops, physical workshops, collaborative workshops, 4-week WHM course, SOMA online sessions, free tryout workshops* and a *12 months development programme*. (Hanzen, 2022) So there is a wide range of possibilities to engage into different activities for everyone, beginner and advanced practitioner.

To sum up, *the instructor plays a central role in the facilitation process*, because the instructor is responsible for all of the different aspects during the course of the programme, like basic training, skill assessments, translation of knowledge, safety of practitioners, facilitation of the courses, moral support and encouragement.

## Part 6 - Findings from the field

In this part of analysis attention is put to data from the *fieldwork*, such as 4-week course and 3 workshops, that occurred during the span of 2 months and online survey that was used as qualitative data assessment and phenomenological insights from the group practice. Brief introduction of workshops has already been mentioned in Chapters 8 and 9. This part of the report also reflects on some of the internal dynamics of the practices, captures the different practitioner stories and their motivations, and seeks to answer RQ2, RQ3 and RQ4.

In this part of the thesis the *argument* or *claim* in place is that breathwork methods are extremely versatile and the intention is to use this part of analysis to support this claim with findings from the fieldwork.

### **Description of the field**

The main location for the fieldwork was at *Amagerbro* in Copenhagen at a location called *The Commedia School*. The location is approximately 10 minutes walking distance from *Amager strandpark*, which is a beach with access to water. The facilities of *Commedia School* are used and shared between Birger and the people who are part of the school, which is located on the 2nd floor of the building. In total the facility has three floors and it is also a badminton club on the first floor, where the ground floor has showers, dressing rooms and storage rooms. This is the main location in Copenhagen where Birger would facilitate his 4-week courses and most of the workshops.

The room that has been used by Birger, is a large spacious room that can approximately facilitate up to 50 people, depending on the activities. This is where practitioners spent most of their time during the span of the workshops.



(Illustration no 6. Location of fieldwork - Amager)

### **General description of the course**

While participating in the workshops and the 4-week course, Birger has a general structure which he follows. The programme for the course stays consistent unless there is some special collaborative element that gets involved.

*“It is that the course lasts for 4 weeks, starting on the first Monday of each month. It officially happens on every Monday from 18:00 - 21:00, sometimes finishes around 22:00, depending on the amount of participants. Every first day and the last day of the 4-week course has a drop-in workshop at 16:00-17:30 (free of charge), It consists of an introduction to breathwork, group practice and the possibility to plunge in an ice bath.”* (see Appendix 1,1)

Every Monday during the 4-week course, each workshop has a different agenda or different information that the participants progressively get introduced to. Nevertheless, after the first course participant is able to go home and apply the learned method with facilitation of the WHM app. Birger encourages people to



download and use the WHM app after the first workshop, since it helps participants to *stay on track* with their practice and it has great facilitation features.

During the entirety of the 4-week course practitioners are introduced to Wims' and Birgers' story, safety measures and relevant information, facilitation with guided breathing; challenged with cold water immersion; involved into group discussions and social activities. On the last Monday for the 4-week course participants celebrate and everyone receives a certificate for their participation in the course.

### **The observation guide**

First upon joining the course, I took a neutral role as participant observer/researcher. Besides Birger none of the participants knew that my participation in the course is related to research, so all the other practitioners would consider me as one of the attendees. So initially my role was quite neutral and advantageous, because the other practitioners would not look at me as the *outsider*. Another variable that differentiated me from the practitioners is my limited Danish language capacity, I was not able to fully express myself to the same extent as the rest of practitioners. This required me to stay very present, in order to pick up different insights from practitioners while in the group discussions and when sharing their stories.

Nevertheless, my degree of involvement gradually throughout the 4-week course increased from *passive* to *complete participation*. During the first workshop I was mostly engaged on a level of *passive* participation regarding the social aspect of the course, but on another plane I was already *actively* participating in the group activities. While being in the disguise as a regular practitioner, I also used this time to *rapport* with the fellow practitioners to build relationships for future interviews.

After the first workshop I was aware of the general social dynamics between people, these observations assisted me further in the rapport, because I already could see which of the participants are more likely to be open for future interviews. It is because some of the participants were positioned in vulnerable positions, by sharing some personal and sensitive topics. With this in mind I would engage into discussions and '*small talk*', just to get to know some of the people better, and establish friendly and trustworthy relationships. So the participatory process itself was a progression towards a destination that was initially unknown upon entering the course.

As the experience of the 4-week course progressed so did the scope of the research, by entering the course with a *wide angle lens* was advantageous, because there were no constraints towards specific framework, that could otherwise be limiting early in the participatory process. Eventually this type of approach enabled me to narrow down my scope and prepare in advance with questions and different things I wanted

to find out. During the process of planning Birger also assisted me with some relevant suggestions, especially when creating the quality survey for the practitioners, which was handed-out during the third workshop from the 4-week course.

Throughout the 4-week course general focus has been towards understanding the *practitioner*, the *insider* culture, observing the practice, document the general timeline of the events and take some relevant notes of the social dimension. (see Appendix 1) By having a fixed group of practitioners for four weeks, through observations and interactions, has enabled me to see their initial entry into the course and their overall progress.

## Chapter 25) Observations and insights from the participatory practice

During the period of 2 months (March-April), I have actively been participating in the different workshop experiences, such as *The 4-week course*, two *hop-in workshops* and one *Advanced WHM workshop*. Through application of auto-ethnography and participatory observations I have collected a volume of useful data from the fieldwork. Here is a list of some of the observations from these practices based on notes and descriptions from Appendix 1, 5 and 6.

- **General atmosphere.** Very friendly atmosphere, everyone is smiling, kind and welcoming to each other. The workshop is where people meet in their humility to try out the WHM. Everyone is a new practitioner and all have to equally open up to everyone's presence in the room, meaning that for some people it can be uncomfortable to loosen up in a room full of people to try out something new like breathing exercise and to be aware of everyone breathing out loudly. The camaraderie and opening up is also fortified through activities, like sitting in a circle, sharing testimonies and personal improvement stories, encouragement towards one another, socializing during the snack break and shared emotional journey.
- **Advantages of smaller groups.** The 4-week course normally is for 12 people, so that there is a level of intimacy that stays with the group. The smaller the group, the bigger the likelihood that more people are going to open up and share their stories with each other. From a point of view of the facilitator, it is also easier to host a workshop to a smaller audience, that is for many reasons. Like, easier to manage time, likeliness to have deep exchanges of information, easier to host since facilitation requires mental energy, logistics and other.
- **Group practice.** Most practitioners feel empowered when practicing together due to the encouraging nature of the group dynamics. They have to engage themselves into uncomfortable

situations, like *cold immersion*, which for most would not be something that they would do individually. After trying the cold immersion in a safe group setting, about 80% of practitioners started practicing it themselves.

- **Building cold tolerance.** After trying the *cold immersion* mixed together with the WHBM, participants reported increased tolerance towards cold. Some of the participants even had problems with their bodies thermoregulation, like Mette. By a known condition called *Raynaud's syndrome*, (John Hopkins Medicine 2021) which causes decreased blood flow to fingers and toes. She described how her cold tolerance has greatly increased, especially in her fingers, as she explained she does not have to wear gloves anymore. (Appendix 12, 13:08) Most of the participants had drastically increased their cold resistance with frequent cold exposure and application of WHBM, within the 4 weeks time.
- **Familiarity with the WHM.** 90% of the survey respondents were familiar with WHM prior to joining the workshop experiences. Some of them have practiced the WHM and joined the course to learn more in depth about the WHM from certified instructors.
- **Sound in practice.** While participating in the Birgers' workshops the application of sound is essential element for the facilitation of the breathwork practice, as Birger explains: "*All that I recommend people if they don't use the app or eventually buy my guidance, they will find music that gets you emotional, either high or low emotions(...) Music is a very good Kickstarter or initiator of getting into that emotional state. So music is very important.*" (Appendix 9, 21:19) During the workshop music is played through a big speaker that is placed in the middle of a circle that is formed of practitioners. The importance of music is that it supports the breathwork practice, by applying an especially made rhythm that mimics breathing patterns.
- **Digital technologies.** Most of the practitioners followed Birgers' suggestion towards applying WHM app in their daily practice, since it captures many dimensions of the WHM in one place, some practitioners have also used *guided breathing* from different online sources and social media to connect with the Hoffer community.

## Chapter 26) Understanding the practitioner

Upon participating in the group practices, understanding the practitioners has been almost the main focus. While participating in the workshops and talking with practitioners, it would be in a form of informal conversation, where it would happen naturally. Nevertheless, I would keep in mind a few things that I wanted to find out, such as - *Why does one practice WHM?; How is their experience?; Has there been any improvements?* Answering these questions would let me know about participants' motivation for

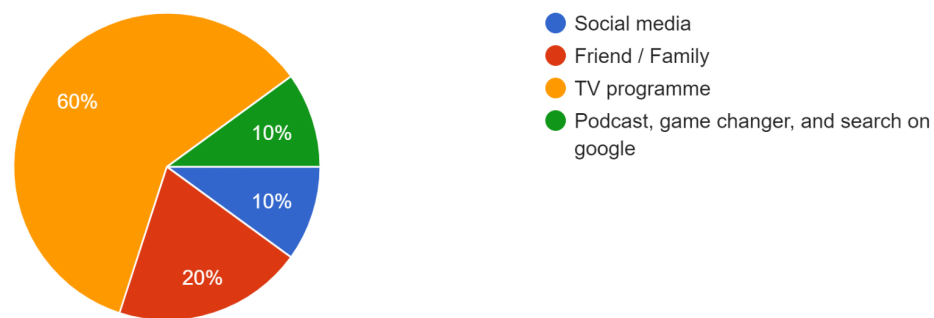
joining the course, would give me some indications of their practice routine, if the practitioners are using any technological assistance and if they have any personal improvements. In the total span during the thesis, I have talked approximately to 50 people, just to understand what are some commonalities and differences between them. (see Appendix 6)

### Describing the practitioner

As the 4-week course started, initially it was of 23 participants, excluding myself, which by the end of the course was 16. The ratio between males and females was about the same 1:1. All of the participants had paid 3000 DKK to participate in the *4-week course*, so it was in their best interests to attend the course. This was also the largest group that Birger had for the *4-week course*, normally he would have approximately 10-14 participants, but due to the recent media exposure on Danish broadcasting Corporation - DR, he received increased public interest in his workshops. That was supported by practitioners answering the survey question - *How did you hear about Birger's workshop?*, (see Appendix 4) where 60% of respondents answered via *Tv programme*. Interestingly 20% of people find out about Birger through friends or family. (see the graph below)

How did you hear about Birger's workshop?

10 svar



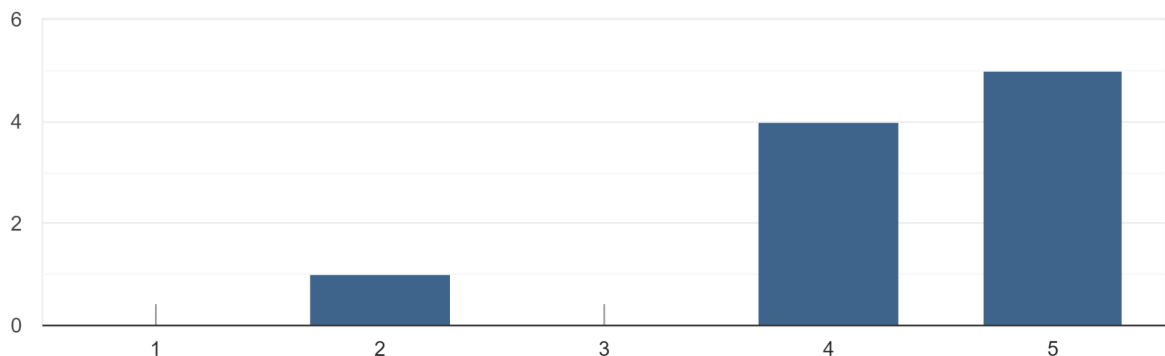
The participants were split in three age groups; *15-30*, *30-50*, *50-99*, in order to optimize the data collection and differentiate between *youth*, *adults* and *seniors*. Understandably for more qualitative data assessment age groups could be divided into even smaller groups. As it is seen in the chart below the majority of respondents, which is 70% are in the age group of (30-50). This gave some indication that most of the participants, considerably *adults*, were more prompt to join the course for a multitude of possible reasons, like financial capability, certain degree of maturity and necessity to change something in their personal lives. Upon being asked for - *Why did you decide to join the workshop?* participants had

mixed sets of answers, like *health reasons*, *due to stress* and as *part of their lifestyle*. (see the chart *nr below*) These were already given options for them to choose from, yet they also had a choice to write their own answer. These options were based on the most popular answers from the first workshop, where people briefly mentioned their reasons for joining the course, when asked in the group discussion. Considerably relation between *stress* and *personal health* are very closely linked with each other as we established *stress* connection to *mental* and *physical health* throughout the different chapters in Part 4 of thesis.

As it is with general motivation throughout the three week period of the course, 90% of participants had reported an increase in their motivation, this indicates that something must be working right and practitioners are generally satisfied with the WHM. Upon answering about their motivation during the workshops, which was measured in scale from 1-5 (1 - being the least and 5 - being the most), 40% of participants reported a value of 4, 50% of participants reported a value of 5, where 10% reported a decrease in motivation to value 2. (see the graph below)

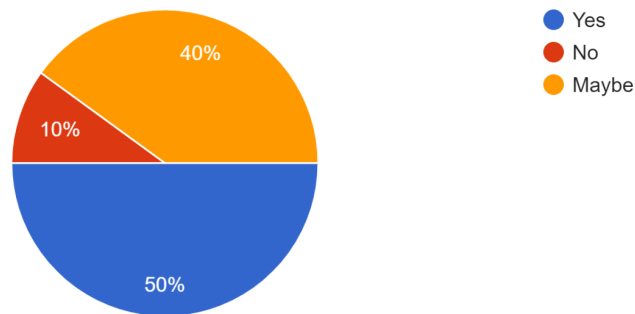
How motivated are you now in your workshop experience?

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Has the WHM helped you with alleviating stress?

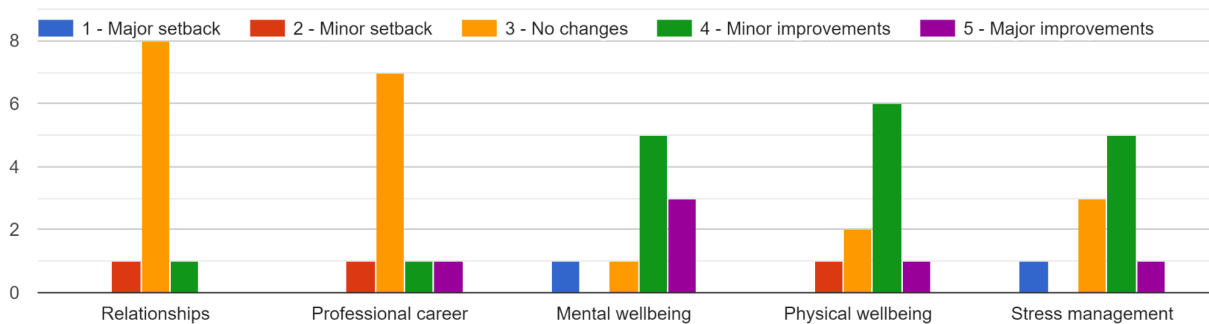
10 svar



It is important to stay motivated especially upon developing a new habit. People are more likely to continue the practice if they feel changes and see any results. To measure the impact and changes of the WHM in different areas of respondent lives, 1-5 system scale was applied.

Upon being asked to evaluate different changes in 5 areas of their lives, the majority of respondents reported *minor improvements* in areas that are closely associated with their personal health like *mental wellbeing*, *physical wellbeing* and *stress management*. For 30% of respondents their *mental wellbeing* had *major improvements*, which was the area with highest improvements, 60% reported *minor improvements* in their *physical wellbeing*, which was the second highest area of improvements. Interestingly 50% of respondents reported *minor improvements* in two areas - *stress management* and *mental wellbeing*, this indicates the correlation between these two areas. (see the graph below)

Have you experienced any changes in regards to different aspects of your life? (1-5, 1 - being the least and 5 being the most)



When asked *if they have been using the WHM app*, 90% of respondents reported *yes*, whereupon answering “Yes”, their answer directed them to two further questions - one regarding assessment of *the most used features*, the other for the *most relevant features for practitioners*. As expected, *facilitation of the breathwork* was the *most important and used feature* for all the respondents that use the app, the second most used feature - *cold shower challenge* for 55%, the third - *e-learning* for 22%. The second most relevant feature for 33% of respondents was the ability to *register and track their progress*. As the finishing questions, respondents were asked *if they are planning to use the WHM after the course and if they can apply the WHM in different areas of their lives*, to which 89,9% of respondents answered ‘Yes.’

In general the feedback has been very positive and it suggests that people are mostly satisfied with the results of the WHM. There is also an indication towards future application of the method.

In reality 100% success rate is nearly impossible to achieve, yet there seems to be one practitioner from the 10 respondents that was generally dissatisfied with the results from the WHM, it would be interesting to find out what were the major setbacks for this practitioner. This could indicate a possible area of exploration for future studies.

### **The Different participant narratives**

These following descriptions are several of the practitioner stories that I wanted to highlight from having conversations with the different practitioners, for most that I met during the workshops. In total there are 13 stories that can be further read in Appendix 6. I have chosen to highlight 5 of the stories to exhibit the diversity between the practitioners and to highlight different reasons for practicing the WHM. These participant stories were made through application of a descriptive approach that was accompanied with phenomenological reduction, in order to gain concise and representative overview of the different participants.

#### **Participant story 2 - *Releasing something old.***

I met a girl in her mid-20’s. She works with animals, she is now finishing her studies in becoming a veterinarian. She seems very sweet, a little bit reserved, loves animals and always seems positive.

While talking with her, she explained to me that she heard of Wim, through a podcast she heard 5-6 years ago. Wim’s practice got her attention and she decided to learn more about it. She even had read some of Wims’ books. She has been practicing the WHM prior to joining the course, for 1-2 years, via the *WHM*

*app* and some of the online videos. The reason she found out about Birger's workshop was through online search for a live workshop.

She explained to me that she joined the course because she wanted to try the workshop by *meeting an expert, trying it in different settings, and learning something new*. She compares the group practice and the individual practice and says how she loves both. At the same time, in the *group practice* the whole *energy and dynamics* of group practicing something together can be *very empowering* and in the *individual practice*, she has managed to get the most *deepest, profound experiences*.

She explains how through her individual practice prior to joining the course, she hadn't managed to reach such a deep experience as she just experienced recently. She called it a *breakthrough*. She was not necessarily sure herself of what had happened differently from her usual practice, but this one time, she suddenly felt extremely overwhelmed and what she describes "*as release of emotions*" occurred, where she suddenly started to cry in the middle of her practice. She described them as '*tears of joy*'. She recognised this as something very beautiful and profound. When she shared this with me, she had not shared it with the rest of the group.

#### **Participant story 9 - Self organizing nature**

During the Advanced WHM workshop, I met a gentleman, in his 50's. He seemed very positive, energetic, humorous and friendly. While talking he explained that he picked up the WHM from 2019, during the pandemic. He said that he had *lots of free time*, and he wanted to *invest into his health*. Mostly his practice started as something accidental he just heard somewhere from the internet, he tried it, it really clicked with him and now he is doing it every day, for the last 3 years.

He explains how through *self practice* of WHM, he has met many different people, and that he has become good friends now. He first found out about the method, then practiced it and then made a Facebook group, to find anyone similar minded who would be interested in practicing the WHM together with him. Since then he has a *growing Facebook group of WHM practitioners* that meets up on a weekly basis to *practice the WHM together*. This helps with the practice, making it more fun as he says.

#### **Participant story 10 - The perfect example story**

During the Advanced WHM workshop, I also met a man that had a prior lung tumor. He even showed us the scars from his operation. He seemed like a gentle, calm man in his 40's. He explained how he used to



be a professional *athlete* and *train for swimming competitions*. He has been doing it for half of his life, and he remembers how he tried to *optimize his performance* by doing different breathing techniques.

Back then people did not really know much about these methods, so nobody would take him seriously. He tried to find a way towards optimisation.

Eventually by accident, he got diagnosed with a tumor in one of his lungs, and luckily for him, the operation was a success. Initially, he had no clue that he had a lung tumor, he remembers feeling that there was something wrong in his body. Fast forward to post-operation, he has been using the WHM for his body's *recovery* and *strengthening* his lungs. He said that *WHM had saved his life*, if he did not know about it, it would have been very difficult for him. It helped him mentally and physically, it created the empty space of silence that he needed for the healing process to take place.

### **Summarizing the practitioner**

It appears that based on the demographics, these people vary with many different aspects, like their professional background, social status, age and presumably their income. Besides their differences these practitioners share something common, that is all of these people use WHM with the application of digital technologies, especially the WHM app. One of the recurring themes from these people was that the *app supports their practice in various degrees*. Primarily for most it is the *facilitation* of WHBM that has a central role in their application of the app, secondary *registering and tracking practice*. For others, like *participant 9* use social media like Facebook to connect with the *local community*. Most of these people are also parts of opened and closed groups on Facebook. Some of the people are already experienced in practicing the WHM like the *participant story 2, 9 and 10* vouching for the physical and mental health benefits from the application of WHM.

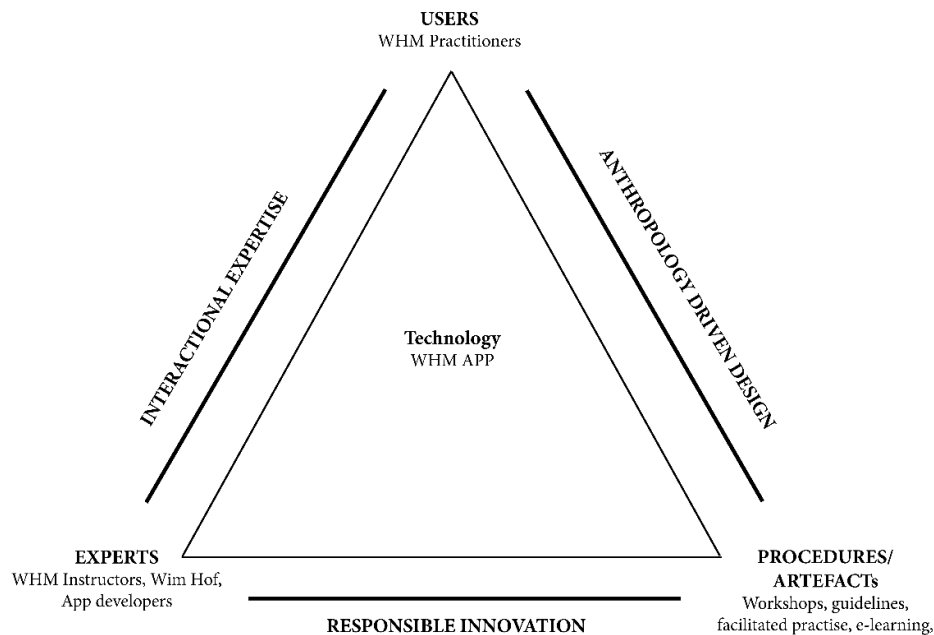
According to practitioners the application of WHM has multitude of benefits, so it is very versatile in its functional application towards personal health, wellbeing, recovery and performance optimisation.

Interestingly from all the practitioners I have met, the majority is in the age group of 30-50, it can suggest many different things. One commonality being that practitioners engage into the WHM when they experience certain drawbacks in their life and the conventional approach to their problems does not work.

## **Part 7 - The Technological dimension of WHM**

In this part of analysis TA triangle is used to explain the Technology of WHM app and its relation in a socio-technological configuration and briefly to explain the different interactions between the Artifacts,

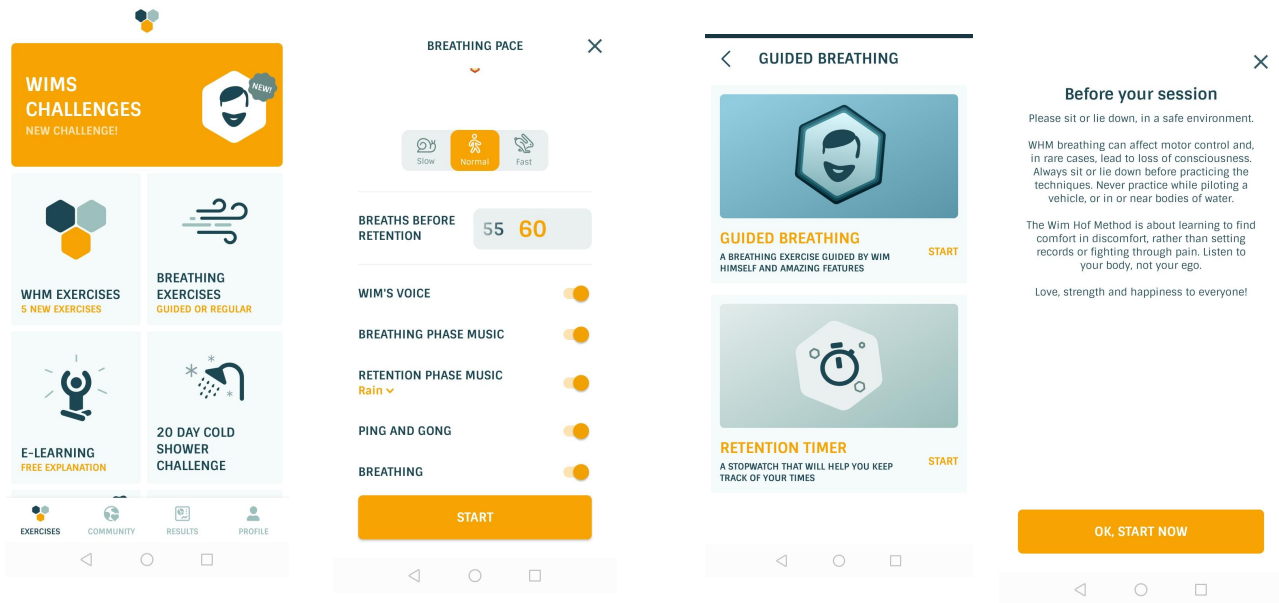
Users and Experts, to elaborate on the functionality of the WHM app. In the context of Technology it cannot purely be reduced to artifact, since application of technology implies certain knowledge of use in practice and necessary skills and competencies required to use the technology. By following the illustrative model of TA-triangle it is possible to see the different elements of Socio-technological configuration in action. In the middle of the TA triangle is placed the Technology - WHM app, which forms all the relations towards the different corners of the triangle - Experts, Users, Artifacts.



(Illustration no 7. Representation of the TA-triangle)

Starting from the left side with the Experts, those are the people responsible for the facet knowledge, in this case WHM instructor - Birger, Wim Hof as the founder of the WHM and the APP developers. This does not imply that every WHM instructor is expert in digital technologies, but points in the direction that WHM instructors and Users have the same practical and technological knowledge in application towards the app. The app developers have technical knowledge of the app, but they might lack the practical application of the method. Since Wim is also an expert and practitioner at the same time, he must have a very good knowledge of different practicalities and applications of the method, since the app is constantly being optimized. This puts the app in a constant self propelled process of innovation, and most likely there is no need for Interactional expertise from techno-anthropologists, since the link between practitioner and expert is already established. Reasonably that is, if Wim is even involved in the development of the app. One area of possible optimization on the side of Interactional expertise could be regarding the *user friendliness* of the app, where there were no clear indications from the different

practitioners of the app not being user friendly. The app itself feels very intuitive and employs an aesthetically pleasing and user-friendly layout with a good overview as seen in these images below.



(Illustration no 8. Screenshots from the guided breathing)

The design of the app implies professionalism, since it uses different design elements, like color variations, it has a simple overview and user-friendly interface. The four screenshots (viewed from left to right) show the four necessary steps for someone to start their own breathing session. Upon Opening the app and choosing “breathing exercises”, one is moved towards “guided breathing”, where selection is made between the two available practices, from which ‘guided breathing’ is selected and this is where user can optimize and personalize their breathing session with different variables, like ‘speed’, ‘sound’ and ‘breaths before retention.’ When practitioner is finally ready they are introduced to precautions as an intentional nudge to ensure that practice is done safely. Upon using the WHM app for the first time, the practitioner is required to watch introduction videos to ensure the safety of practice by being introduced and informed of the WHM. Following this descriptive example shows the safety insurance before starting the practise, which implies that the app is also supported with ethical assessment towards Social Responsibility. This is also a recurring theme through the app, since the advancement level of the practitioner gradually unlocks different functionalities from different practices.

As it is between the interaction of Users and Artifacts, the users are not exploited by the WHM app and are not in compromisable position, so there really would be no obvious need to apply the Anthropologically driven design in a sense of conflicting interests. This is really unsure, since there are no clear indications pointing towards conflict of interests.

One of the future considerations for the development of WHM-app and digital technologies, such as different online courses, is their application towards teaching-learning, since that is what is also facilitated by the WHM app. Reasonably there is enough material for anyone to get started with their theoretical understanding and practical application of the WHM.

## Chapter 28) The different technologies

Through the technological application there are multitude of different technologies that are currently available on the market towards optimizing the individual performance and group practice of the WHM. Almost anyone nowadays has access to smartphone and digital technologies, so that opens up the possibility for anyone with smartphone device and access to mobile data, to download and use the WHM app since it is for free. There are certain limitations towards the full application of WHM, but that does not necessarily require the paid version. Based on my findings there are three degrees of *technological mediation*: first being the WHM itself *does not require technology*, second degree of *participation uses the WHM app and digital learning technologies*, third degree of participation *applies wearable technologies and vibrating floors*.

The first degree of participation reflects upon the phenomenological nature of the practice, and just by knowing the WHM protocol, one is able to practice it, without any technological interventions.

The second degree of participation involves application of digital technologies, such as WHM app, which has many embedded functions and different learning tools. This level of technological participation uses digital technology to primarily facilitate and support the practical and theoretical application of WHM.

The third degree of participation involves wearable technology, such as Apple watch or any self tracking device that is able to function independently from the WHM app, even more advanced is the application of vibro-acoustic technology, like the bass floor. These technologies optimize and greatly enhance the WHM.

## Part 8 - The Phenomenological angle

### Chapter 29) Personal practices and journey of *becoming*

Upon personal engagement into the WHM, I have been able to reflect on various internal processes and understand some of the different elements of the practice through my own experience and through the

unfolding of the experiential process. I could relate to all of the different phenomenological concepts that were introduced in Chapter 14, since most of the practices have overlapping nature with one another in the context of practicing and approaching the phenomena of WHM. As I mentioned previously documentation happened by taking physical notes after most of the breathwork sessions, which are available in the Appendix 3. Before I downloaded the WHM app I would practice the WHBM without any technological mediation, the difference for me was obvious. Another variable for me was that before receiving any guidance from Birger towards the application of the WHM, I was doing something slightly off, because during my breathwork sessions I would fall asleep, thus interrupting my own practice and not finishing it properly. Eventually with some guidance my practice advanced and I could notice different improvements in some areas of my life, especially my physical performance and mental wellbeing.

I have chosen to highlight two of the descriptions of my personal experience to paint a picture of how different breathwork practice looks like and to mention some of the similarities and differences between both of the sessions.

The first session I want to highlight was when for the first time I tried the SOS protocol, which has resemblance with SOMA breathwork practice, which employs methods of visualization and muscle contractions, during the practice. This has enabled me to reach interesting experiences that activate various physical stimuli.

### **The SOS protocol**

24.02.22 - 11:10-11:40 - *SOS breathing* of 30x + long breath retention (3x)

After the breathing exercise - SOS protocol, I could testify on the significantly energizing properties and effectiveness of this method. I had it compared to WHBM since days prior I had tried it for 2 times on separate occasions and both times ended in *almost sleeping*. There are multiple possible variables that come into consideration, when comparing the contrasting experience between the two methods. Such variables as, the time of the day meaning that WHBM was done in the second half of the day, while SOS protocol was *done in the morning*. Another worthy consideration would be, my inexperience in accurately practicing WHBM before prior consultation with Birger. Lastly, my body's position while practicing the breathing exercises, difference such as lying position and sitting position.

One of the differences right after the SOS breathing, is that I could *feel sensational tingling over specific parts of my body, auditory stimulations (high pitch frequency in my inner ears) and visual stimulation, that looked like illuminated yellow coloured geometrical pattern, something like flower of life fractal. The more I manage to quiet my mind, the stronger the sensations would be perceived.*

By the end of the breathing exercise upon slowly and gently opening my eyes it felt like I was coming back from a *deep space of familiarity*. The place could be described as *ever-disappearing*, since the present moment does not have time for an analytical mind to analyze and filter the information. It is like a constant chase of infinite expression captured in one momentum that is everlasting, if accessed. The deep space from a physical perspective gave me the experience of coming back to everyday state. Best example I can think of is; leaving a dark room and entering natural light, the accustomization of the eyes has to happen, the colors turning from dark to bright, in a split off few seconds. To be more exact the opposite phenomena happened through my experience of accustomization, my vision went from darker color brighter color, just as waking up from a deep dream. This I experience often by going deep into the experience.

The second practice I have decided to highlight is the WHBM, where I had considerably great success towards engaging into deep states of awareness. Normally that is the desired state I try to achieve, because of the great feeling I would experience, and the experiential, what could be described as metaphysical world, which could be relatable to Heidegger's concept of *clearing*. There is a sense of complete immersion in the practice, which brings about mystical experiences. Maybe it is a state of heightened awareness or altered state of consciousness. I would never consider breathwork to be so powerful. Something so simple, yet powerful.

## **THE WHBM**

06.03.22 - 14:20-15:20 - WHM of 33x + long breath retention (4x) + APP + meditation

It is a sunny Sunday afternoon. I have started my day with a cold swim at the Islands Brygge. I have come back home where I will practice the WHBM.

I get in my usual position, that is in my room, on the yoga mat, this time by comfortably laying on my back. I am using the *WHM app to empower and facilitate* my experience. In total I performed 4 sets of WHBM, but I recorded only 3 of them with the app, since I had an intention to hold longer breaths that come after the long retention. In the WHM app the first breath-in after the long retention is set to default

15 seconds. After the last - 4th set, *I intend to use the deep mental state that is acquired by the WHBM to more easily enter into a meditative state.*

Starting with the first round, I observed that during my first breath retention I could hold my breath for about 2 minutes, which at that time I considered relatively low, since in my previous session I could manage 2 minutes with ease. After the second round's retention I could keep myself composed with the breath-hold for 4 minutes. While I was holding my breath *I was extremely relaxed* and I would *experience tingling sensations* over part of my body *especially, fingers, feet, toes and lips*. I would also experience *high pitch auditory sensations* in my ears. Not like tinnitus, but rather a pitch that changes its frequency based on my level of awareness. The more relaxed I get, the more complex the tone evolves.

Because of this deepened state I entered through the WHBM it was a great idea to transition into a meditative state, right after finishing the exercise.

### **Further elaboration on the practices**

Taking these two descriptions of my experiences as examples, the *first similarity* between both of them is that they as what can I describe brought me to a '*place*' or as Heidegger referred - *clearing*.

*Second similarity* would be the feeling I would experience, once engaged in the process, both of the experiences had the same characteristics like of *peace, familiarity* and *deep relaxation*, which I believe can only be accessed through a state of presence.

*Third similarity* is the increased energy and happiness levels after the practice. I have always felt empowered and energized, like there is an internal confirmation to myself that '*I am on the right path.*'

As it is for differences between practices, the *first difference* is the technical application of the method, they do not differ so much from each other, yet one uses an additional element of visualization.

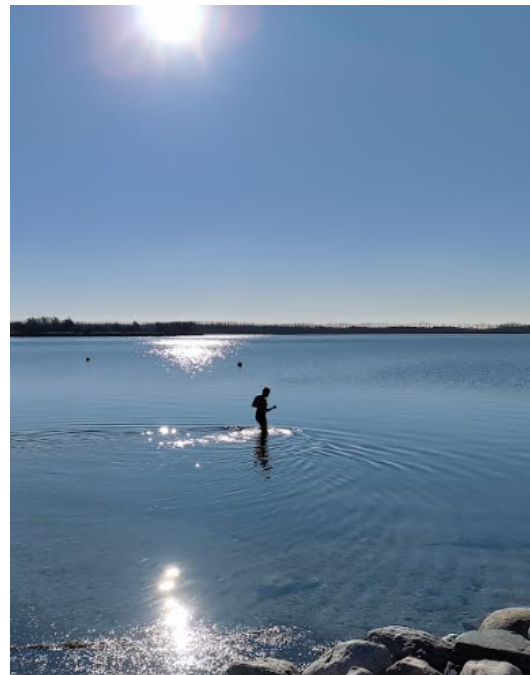
*Second difference* would be my posture, for SOS breathing I was in a sitting position, where for WHBM I was laying on the yoga mat. I am not sure how much this affects the practice, but sometimes when I have low energy levels, I could fall asleep if laying on my back.

*Third difference* is that when using the WHBM, I facilitated my practice with the WHM app, so it provided me with guided instructions, which can sometimes be very beneficial, especially when I experience problems with focus.

## The Cold Therapy

Before joining the 4-week course, I had started to apply the cold water immersion in my daily routine. It was normally done during my runs with my girlfriend, where we had a running route to Valby park. Upon reaching the waterfront, where we would stretch, I would engage myself in the sea, since there is a small beach with access to water. Within the span of 10 weeks, I had managed to plunge in the cold water for 51 times. Initially from the first day, I could last about a maximum of 1 minute in the water and by the end of this period my cold resistance increased to 10 minutes, with no problems. Many times I had to get out of water, because my partner would get cold from the wind, while waiting for me.

During this period, my partner and I also joined a local swimming place, called - Valby Vandkulturhus, where we would go 3-5 times a week, depending on our schedule and spend all of our time in different saunas. While doing this in between the sauna sessions, we would use the option of '*the ice cold shower*', which is located next to saunas and activated by pressing a special button. This was another way we would engage with the cold immersion, this time through showers. Eventually I joined the WHM 4-week course, where I would also engage myself in the ice buckets as part of the workshop experience.



(Images no 9. Cold exposure)



Initially when in the cold water, my body would experience a sense of shock and pain, that is similar to a burning sensation. Just after practicing the cold immersion for one week, I increased my time in water from 1 minute to 4 minutes.

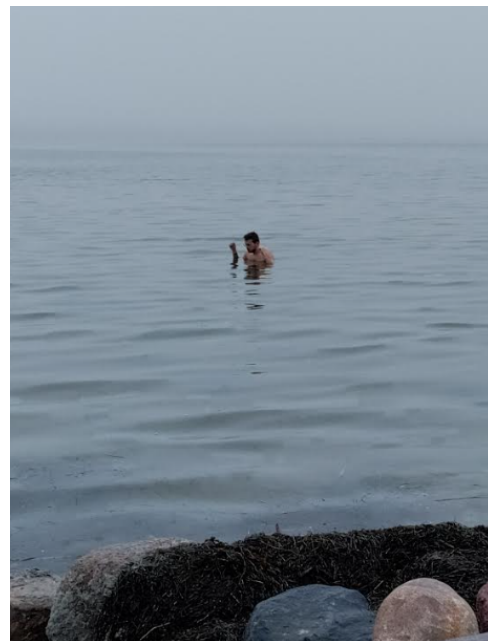
Besides all the physiological benefits, I would experience an increase in my confidence, energy levels, and personal engagement towards different activities. Suddenly my schedule was full of different activities.

From some of the phenomenological insights I noticed that the practice *helped me to connect* with *deeper parts of myself, my being*, and gave me the *feeling of empowerment* through *self realization*.

Another interesting observation was that while I was sitting in the sea water, I was extremely *still* and *peaceful*, and every time I would reach that state of *relaxation*, I would *not feel the sensation of cold*. It is like by staying present and ‘*accepting the cold*’ enabled me not to perceive the sensation of being or getting cold. Suddenly the cold was my friend. As Birger mentioned, *cold is like a mirror*.

### **The Journey of becoming**

My journey from when I started, to where I am now, really shaped my take on the cold and breathwork practices. Prior to these practices I considered myself a mindful person, but once by pushing my limits and consistently experiencing these different levels of positive stress to my body, I could really feel the



(Images no 10. Cold exposure)

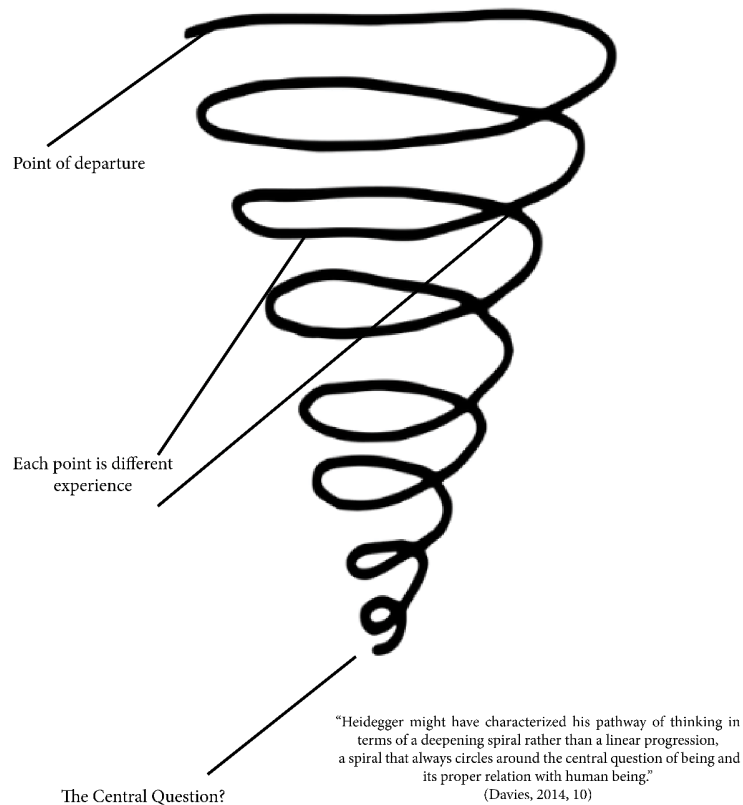
change on so many levels. I started to think of these experiences more from a phenomenological level, I tried to understand what is really happening, besides the physical and mental processes and benefits. I could observe how my quality of thoughts had improved and how I felt something like ‘the life energy’ being stirred up in me. Suddenly I had many great ideas and I became a little adventurous towards self improvement and actualisation. Nothing could really worry me or upset me, the level of empowerment was liberating.

These experiences reminded me of the different phenomenological concepts from Husserl, Merleau-Ponty and Heidegger. Where from Husserl it was the concept of *intentionality*, which I would experience first hand by engaging into these activities, suddenly I saw that I have so many reserves of capacity and mental energy that I did not know existed. As from Heidegger's approach to phenomenology I clinged with the concept of *Dasein* as it describes the relationships between *being* as inseparable part of the *world*, because sometimes while in the practice and reaching those states of *clearing*, the world starts to reveal itself within the observer. As it is for Merleau-Ponty and his phenomenological view of *world* and *humans* being intertwined, and the dialogue between *world* and the *human*, suddenly made more sense, because it felt like that through the *cold* and *breathwork* these phenomena themselves were shaping my experience and perception of the embodiment relationships, like that the experience of becoming was ever unfolding itself. It is like if the body is put in cold water it will react, so in essence there is that adaptation taking place not only from a physiological perspective, but also mental. As with my discussion with the Biohacker he describes the power of breathing in comparison to psychedelia:

*“You know when you're breathing, you start to feel better and blah blah, but the main thing is when you start breathing and for me for the first time it was like I took let's say a mushroom or I don't know LSD, because I had super strong visuals and I thought to myself: Come on! This is so beautiful, I need to do this. And what's happening in my life. It's like, This is what starts at some point. The miracle starts showing(reveling), even though that at this age I didn't realize that this is the miracle”* (Appendix 8, 05:36)

I believe that these philosophers eventually are talking about the same phenomena, only through their individual distortions and perceptual lenses. Likewise the different practitioners described various highpoints in their practices, where some might not even realize the mystical/spiritual experiences.

I have added a visualization that resembles one of the Heidegger's characterizations of how thinking resembles spiral, rather than linear process.



(Illustration no 11. Representation of Heideggers' phenomenological spiral)

## Part 9 - Conclusion

Throughout the research I have primarily investigated the WHM through application of phenomenology and auto-ethnography, to understand the technical and practical side of the WHM and its relations to technology. By applying TA-triangle I have attempted to understand the relevant domains of necessary future assessments for the Techno-anthropological expertise and identified the socio-technological configuration. This research is an attempt to answer the Problem Statement, which sounds like this: *What can phenomenological and auto-ethnographic insights bring to understanding the relations between WHM and technology?*

There are three relevant findings in *WHM relation to technology*, that is, technology as the *WHM app enhances and facilitates the practice*, it *provides access to knowledge*, and *allows practitioners to customize their own practice*.

As it is for R1, the *key features for learning and practicing the WHM* are the *mindset, motivation, curiosity* and *prior exposure to information* related to WHM. The R2 sounds like this: *What improvements to individual and societal wellbeing are attributed to WHM and how are these experienced and/or observed?* Where the answers are the WHM empowers individuals, battles the negative stress and contributes towards positive stress, helps mental and physical wellbeing, establishes healthy habits and offers individual mystical and experiential side of practice. These positive attributes are experienced once practiced or observed through someone that practices the method.

The R3 sounds like this: *What are the roles of digital technology in supporting the practice of the WHM, and what characteristics of WHM are not well supported by digital technology?* The supportive roles comes through application of WHM app, which supports the practise of WHM in a variety of ways, such as tracking and registering the practise, offers guided practise, e-learning, personalisation of practise and enables the use of Apple watch. Where digital technologies, like the app, are not compatible with other wearable technology brands.

# Appendix

Appendix 1) Description and notes from the 4-week course

Appendix 2) Interview questions for WHM practitioners

Appendix 3) Individual practice observations

Appendix 4) Questionnaire for 3rd workshop

Appendix 5) Description and notes Vibroacoustics workshop - Advanced workshop

Appendix 6) Descriptions from conversations

Appendix 7) Thesis Structure overview with the arguments

Appendix 8) Interview transcription - Biohacker

Appendix 9) Interview transcription - WHM instructor pt1

Appendix 10) Interview transcription - WHM instructor pt2

Appendix 11) Interview transcription - WHM instructor pt3

Appendix 12) Interview transcription - Therapist

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