

Meditation,  
the secret ingredient to a healthier and more productive workforce

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*I lived in the present, which was  
that part of the future you could see.  
The past floated above my head,  
like the sun and moon, visible but never reachable.*

—*Landscape by Louise Gluck*

## **Introduction: Unlocking Talents' Potential**

With the massive information intake as well as the rapidly changing environment, it is increasingly difficult for leaders and talents to not be overwhelmed and burn out. Likewise, organizations would require more decision making and analysis to conduct business activity. But what is the best way for companies to utilize their talents? Is it possible to increase one's productivity? Is it possible to further develop an adult's brain? The answer is yes to all of the questions if one practices meditation. Meditation involves objectively observing the mind's train of thoughts. Existing studies proved that practicing meditation has a variety of neurological benefits – “from changes in grey matter volume to reduced activity in the “me” centers of the brain to enhanced connectivity between brain regions” (Walton, 2018). Meditation has become more popular in multinational companies, like Google, Apple, and Target, as they have integrated the practice into the company's culture (Walton, 2018).

Therefore, this research paper will investigate how meditation could be a solution in improving labors' wellbeing and work performance, and thus indirectly result in the increase in organizational profit. The paper will first analyze the problem, stress, that workers encounter, and how is it a leading factor that affects performance. Then propose meditation as the solution by providing an overview of different types of meditation as well as an analysis of the advantages and disadvantages. In order to evaluate the effectiveness of meditation, I will discuss my first-hand meditation experience, and also find five subjects to participate in the study. The five subjects are working in different roles and industries, but are also under stress. Lastly, an original solution will be recommended to customize a solution not only for the participants of the study but also for anyone else who is interested in starting their meditation journey.

The reason that I wanted to research this topic is that I have always been fascinated by neuroscience and psychology. I was also really interested in learning about Chakras, energy, and horoscope when I was young. Although many of these are unexplainable, I know that they exist in our life. My mother's Buddhist religious background also contributed to building my interest in meditation. All of these are abstract concepts that can influence our behaviors and wellbeing. I personally have been through a meditation camp and felt the difference in increase attention. Furthermore, I have also been to the mindfulness boot camp developed by Google. I am aware that I am more mindful of many aspects of the life of which made me able to view situations in a more objective way. Meditation can help reduce stress and relieve depression. Therefore, I feel like it should be a program that should not only be popular among large corporations, religious practitioners or yogis. If I am capable to provide more pieces of evidence of the positive effects of meditation and how it can help develop the brain. I hope to promote meditation practice to

everyone by making it become an everyday habit for everyone just like showering and eating. Meditation can be integrated into schools as a ten minute assemble activity, or be integrated into companies during lunch hour. This not only will aid companies to perform better due to employees with stronger mental health, but also a healthier labor force in general.

*Stress is caused by being 'here', but wanting to be 'there'.*  
— Eckhart Tolle

### **Problem: Is Our Natural Instinct Killing Us?**

Human's natural instinct helps to protect us and keep us alive, our fight or flight response will be triggered when we encounter any potential threats. As a result, "our sympathetic nervous system is activated leading to the production of catecholamines, adrenaline and noradrenaline" that prepares the body to respond to the situation (Novais et al., 2017). However, when being exposed to chronic stress, these responses have detrimental effects on our mental and physical health. The brain undergoes structural and functional changes, particularly in the hippocampus, amygdala and prefrontal cortex, that translates into behavioral dysfunction (Novais et al., 2017). Hippocampal dendritic atrophy was observed after chronic stress that triggered "the loss of synapses and impaired the long-term potentiation in the brain region", which correlates with "impairments in learning and memory" (Novais et al., 2017). Likewise, there is a decrease in synaptic plasticity in the PFC, which was shown to "affect the hippocampal-PFC pathway, by reducing the LTP response that disrupts working memory and behavioral flexibility, as well as attention task switching" (Novais et al., 2017). Similarly, in the amygdala, "neurons exhibit enhanced dendritic arborization and spine density in response to chronic stress", which "have been associated with increased emotional behavior such as anxiety and fear" (Novais et al., 2017). These effects to the brain cause noticeable stress-related symptoms including "chronic musculoskeletal pain, sleep problems, lethargy and fatigue, depression, anxiety, headache, gastrointestinal complaints, and cardiovascular symptoms" (Greeson et al., 2018)

Can one's stress influence others? A study led by Toni-Lee Sterley of the Hotchkiss Brain Institute revealed that "transmission from the stressed subject to the naive partner required the activation of paraventricular (PVR) and corticotropin-releasing hormone (CRH) neurons in both subjects and partners to drive and detect the release of a putative alarm pheromone from the stressed mouse" (Sterley et al., 2018). Surprisingly, the "transmitted stress has the same lasting effects on glutamate synapses as authentic stress" (Sterley et al., 2018). In the study, Sterley and his team observe the brain's response of a pair of mice, one exposed to stress while the other had not. The results show that "the stressed mouse experienced changes in a group of neurons located in the hippocampus, a brain area that plays a central role in memory and emotional response. The brain of the other mouse that hadn't been stressed, but was now in the presence of its stressed partner, rapidly showed the same neuronal changes in its hippocampus" (DiSalvo, 2018). Although this study was conducted on a mouse, the fact that human also has PVR and CRH neurons that are responsible to activate the transmission of stress means that this result is also

applicable to human. The study shows that simply being surrounded by a stressed individual would be sufficient to receive transmitted stress. This result provides an important implication for the workplace. It shows that if people in an organization are under stress, it will not only impair the performance of the stressed individual but also has a spillover effect to affect others.

Is stress only caused by external factors? Interestingly, Tracy Bale, professor of neuroscience in Penn's School of Veterinary Medicine and Perelman School of Medicine discovered that "a lifetime of mild stress in male mice can change specific epigenetic makers in their sperm to shape brain development and impair the stress response of their offspring" (Paddock, 2018). This is because, there is a "biological mechanism that allows changes in the father's microRNA to be passed onto his offspring", and these "microRNAs ultimately influence gene expression in the offspring" (Paddock, 2018). Furthermore, Studies found that there is "an association between maternal exposure to different stressors during pregnancy and an increased susceptibility of the child to develop emotional and cognitive disorders, such as attention deficits, anxiety and language delays" (Novais et al, 2017). Prenatal stress has different effects on male and female. Prenatally stressed males "exhibit impairments on learning-induced neurogenesis, and reduced hippocampal long-term potentiation (LTP), together with increased long-term depression (LTD)" (Novais et al., 2017). While prenatally stressed females "are more susceptible to a dysfunctional emotional behavior exhibiting an increase in anxiety and depressive-like behaviors" (Novais et al., 2017).

*I have been one acquainted with the night.  
I have walked out in rain—and back in rain.  
I have outwalked the furthest city light.  
I have looked down the saddest city lane.  
I have passed by the watchman on his beat.*

— Robert Frost, 1874 - 1963, "Acquainted with the Night"

### **Solution: The Art of Being Present**

In the modern society, people are so busy with lives that they often rush through moments. It is really difficult to live in the present moment, especially for people living in the city. There are definitely times when one is simultaneously rushing to catch a bus and chewing on their breakfast while practicing a presentation script in his/her head. Robert Frost's excerpt of how "I" objectively noticed "my" behaviors and actions remind the reader to pause and enjoy the moment. Instead of rushing into decisions quickly and reacting to stimulus immediately, sometimes it would be beneficial to take a step back to evaluate problems in a larger context. Therefore, being mindful is especially essential for leaders and employees who make decisions on behalf of organizations. This could be done through meditation.

There are five main types of meditation:

### 1. Spiritual Meditation

Spiritual Meditation is the basis for many ancient traditions including, Buddhism, Hinduism, Taoism, and Christians as it includes an aspect of divine connection (“A Brief History of Meditation” 2018). Yet, the aim of this type of meditation is to focus on self-actualization and awakening.

### 2. Mindfulness Meditation

The mindfulness meditation was derived from Buddha’s methodology. Mindfulness helps to achieve happier and more grateful lives through overcoming negative experiences, acknowledging the reality, and recognizing without judgment.

### 3. Movement Meditation

This type of meditation emphasizes the awareness of the physical body in motion. Particularly in yoga, tai chi, and martial arts, they all integrate the body awareness and deep breathing technique of meditation. The movement meditation serves as a bridge to gap meditation practice to our daily lives (“What Are the Different Types of Meditation? Forms Techniques & Benefits, 2018”). After one master how to be present in his/her body, it could be applicable to any daily task, from walking, eating, gardening to talking.

### 4. Visualization Meditation

Originated from the Tibetan tradition, this practice requires summoning an image associated with particular experience, feelings, and thoughts in mind. The practitioners would try to experience their sensations and thoughts again with the aim to detach them from themselves and achieve peacefulness in their minds (“What Are the Different Types of Meditation? Forms Techniques & Benefits, 2018”). This style requires a skillful instructor to guide the process as practitioners could excessively dwell into memories and/or fantasize the future.

### 5. Chanting Meditation

Many religions include chanting in their meditation practice. The practitioner focuses on the sounds and melody. It is believed that the chants could help to “clear the mind and allow our spiritual strengths to reveal themselves (“What Are the Different Types of Meditation? Forms Techniques & Benefits, 2018”). Qualified teachers would be essential to guide the practitioner in chanting.

All of these types of meditations are not mutually exclusive, one may shift their types throughout their practice in a single setting or even just simultaneously perform few types together. Yet, understanding the different types can enable the practitioners to be more aware of the best type that suits them. For instance, for someone who is impatient, movement meditation might be the most appropriate method to begin his/her meditation journey. He/she can later then try to concentrate particularly on the focused meditation as a means to overcome their impatience. This would make meditation more adaptable to different needs while maintaining the essence of meditation.

To start off the meditation journey, mobile phone application, such as Simple Habit, can be used to aid beginner in practicing mindfulness meditation. In Simple Habit, there is an option to

meditate “on the go”. This allows users to select the time, mood and event happening at that moment as a means for users to access meditation effortlessly anytime and anywhere, thereby enabling users to easily incorporate meditation into their lives. No matter when the user is feeling nervous, commuting, or overthinking, there are different meditation narrative that specifically addresses the user’s circumstance.

Studies have found that that mobile phone application could have a better effect than the traditional meditation method. A research published in the “Journal of Occupational Health Psychology” shows that “short guided mindfulness meditations delivered via smartphone and practiced multiple times per week can improve outcomes related to work stress and well-being, with potentially lasting effects” (Bostock et al., 2018). The “participants were 238 healthy employees from two large United Kingdom companies that were randomized to a mindfulness meditation practice app” or controlled group without the app of meditation recordings (Bostock et al., 2018). During the study, participants were asked to complete one meditation per day, chosen from “45 prerecorded 10- to 20-min guided audio meditations” (Bostock et al., 2018). Eight weeks into the study, the group using smartphone’s app “reported significant improvement in well-being, distress, job strain, and perceptions of workplace social support compared to the control group. In addition, the intervention group had a marginally significant decrease in self-measured workday systolic blood pressure from pre- to post-intervention” (Bostock et al., 2018). As a result, the 16-week follow-up assessment shows that sustained positive effects can occur to the subjects’ well-being and job strain by using smartphone app meditation guidance.

Furthermore, there is another study on novice pediatric nurses conducted by researchers at the University of Southern California. The result is that the group of nurses who uses smartphone app has “significantly more acting with awareness and marginally more non-reactivity to inner experience” skills compared to the group that did not (Morrison et al., 2018). It also found that “the smartphone intervention group also showed marginally more compassion satisfaction and marginally less burnout. Additionally, they “had a lower risk for compassion fatigue” compare to the other group (Morrison et al., 2018). However, this is “only when the nurses had sub-clinical post-traumatic symptoms at the start of the residency training program”, hence signifying that “the smart-phone intervention may be better indicated for nurses without existing symptoms of post-traumatic stress” only (Morrison et al., 2018).

Although both studies show that smartphone app meditation guide could generally help with decreasing burnout and job strain while improving ones’ well-being and compassion satisfaction. The results also show that people with symptoms of post-traumatic stress might not receive benefit from it.

Moreover, there are also other alternatives. One can participate in meditation retreats or program for a more immersive and insightful experience. For instance, Chade-Meng Tan, a Google’s ex-engineer, developed a training program, Search Inside Yourself (SIY), for “individuals and organizations to sustain peak professional performance with ease, grace, and compassion”(“About”, 2018). Tan established the “Search Inside Yourself Leadership Institute” which aims to cultivate leaders through mindfulness and meditation techniques (“About”, 2018).

I was fortunate enough to experience the Search Inside Yourself training program first hand. The entire training process involved simple exercises. The warm-up exercise was to pair up with a partner and listen to the other person without judgment. Often times we have the tendency to think what to respond in advance or interrupt the other person without actually mindfully listening to them. The practice made me more focus on the person speaking. Then we have exercises that have us recall emotions. The purpose was to detach ourselves from our emotions, and merely acknowledge what we were feeling. That enabled us to pause before reacting as a means to handle emotions in a controlled manner. There was another really easy exercise that I did not realize its importance until I have experienced it myself. The instructor simply asked us to close our eyes, listen to our surroundings and feel our bodies. When I do that I instantly realized how I unconsciously tense up my neck and shoulders. I have always had chronic neck and shoulder pain, but had failed to discover the underlying causes. After the workshop, I felt very different from how I see the world. Instead of being immersed in my daily routines, I am able to experience the world in a more objective way as if I am witnessing what is happening in reality.

Like me, many participants feel the advantage of the program. The SIY program yield positive results from “450 participants across 37 programs in more than 14 countries” after comparing the data of the same assessment before and after the training program (“Measuring Success: SIYLI's Impact in 2017”, 2018). Participants feel that their focus increased, since 64% more participants agree that they are “able to notice when [their] attention [have] been pulled away and return it to the present moment” (“Measuring Success: SIYLI's Impact in 2017”, 2018). Likewise, there is a 52% decrease in participants who “feel so distracted that [they] have difficulty sorting out what is essential from what is unnecessary” (“Measuring Success: SIYLI's Impact in 2017”, 2018). Furthermore, mindfulness practice decreases stress since there are 86% more participants agree that they “use a deliberate technique to calm [themselves] when [they are] in the middle of a stressful situation” (“Measuring Success: SIYLI's Impact in 2017”, 2018). Resilience also increased as 56% more participants “feel that [they] can bounce back quickly after an emotionally challenging situation” (“Measuring Success: SIYLI's Impact in 2017”, 2018). In addition, according to the survey results conducted by Institute for Mindful Leadership, “93% of leaders reported that mindfulness training helped them create space for innovation” and “nearly 70% said it helped them to think strategically” (“Mindful Leadership Research Results”).

The effects on individuals have significant positive spillover effects on their work and organization performance. For instance, Aetna, an insurance company implemented mindfulness-based programs in the organization, which resulted in 13,000 employees “regaining 62 minutes per week of productivity with an approximate dollar return, in terms of productivity alone, of more than \$3,000” (Bertolini, 2014). Furthermore, Barry Margerum, the Chief Strategy Officer of Plantronics, said that mindfulness practice helped “improve the way their team works together, enhance their innovative thinking and clarity, reduce stress, improve general well-being, manage difficult conversations, and be generally more at peace” (“About”, 2018). Changes can be experienced in a short amount of time. For instance, the research conducted by Hülshager shows that merely two weeks of mindfulness practice increased well-being, decreased emotional exhaustion, and increased job satisfaction (Hülshager, et al 2013). Therefore, these pieces of evidence illustrate that meditation practice improves the individual well-being of which has a positive effect on improving performance in the workplace.

Although meditation practice has a lot of renowned advantages. There are also dangers that have to be known before practicing it in order to ensure that the practitioner can enjoy the benefits of meditation. Often times, beginners start to meditate because they wish to seek the peaceful and epiphanic state in mind. Yet, this would defeat the primary aim of meditation which is to mindfully and objectively observe oneself (Frey, 2016). When one wants to chase after insights and perspectives, it would immerse the practitioner into the moment and cloud their judgments with subjectivity. This would then triggers unwanted negative emotions, such as disappointment, frustration, and unhappiness, due to the inability to achieve the stage that one expected (Frey, 2016). Therefore, it is important to maintain awareness at each moment, no matter it is in our thoughts, emotions, body or the environment.

Meditation practice's ultimate goal is for one to be mindful of oneself. Hence, rather than merely thirty minutes of deep breathing or yoga session, one should learn to acquire the skill of being in the present as a way of living. This can help us manage many unwanted situations. For instance, when feeling stressed or unmotivated, the individual should acknowledge that it is merely a feeling (Ivtzan, 2016). This way the individual can detach herself/himself from the emotions and move on from them. However, there could be a danger here. As a beginner, it is really difficult to determine and handle the emotions in a way that one wants. The practitioner could have unconsciously buried their negative emotions, and thus creates adverse effects (Ivtzan, 2016). The non-attachment could cause one to avoid the situations, repress emotions or even be indifference to their surroundings (Ivtzan, 2016). Also, when the practitioner wants to cry or feels angry, it could be more useful to relief those negative emotions through other means. Meditation is certainly merely one out of many methods that someone can use to manage their emotions. It should be complemented with other methods, including exercising, crying, talking to someone, finding a psychologist or taking medications.

*Problems can be experienced as... a chance for renewal rather than stress.*  
— Marilyn Ferguson

## **Subjects' Role & Situation**

Subject 1: CEO of Hong Kong United Overseas Bank

Role & Situation – As the CEO of the company, Subject 1 has to constantly travel to different countries to host meetings, attend conferences and negotiate deals. The past week, she even traveled to three countries within 48 hours. Being the head of the organization is significantly stressful as the organizations' future and revenue depend upon every decision she makes. She mentioned that she has no break at all. She usually takes public transportation, like MTR/subway, instead of private cars, because traffic wastes her time. Every gap she has when she is not with clients or colleagues, she finds herself to be replying to emails.



Why does the Subject want to participate? – She feels like this lifestyle is not sustainable as she could soon burn out, yet she has to continue her job as a CEO. Also, she realized that there is a negative decline in her mental acuteness. Therefore, she wants to learn how to take a break and reduce stress. After understanding the benefits of meditation, she wants to give it a try. As she thinks that even if there are no significant positive effects like how she anticipated, there is still no harm to let her brain pause for 10 minutes every day. If there are positive effects, then she would hope to make meditation a lifestyle as a means to reach her potential.

Subject 2: An Executive Director at Henderson Land Development Company

Role & Situation – Subject 2 is currently the lead for a major project for the Hong Kong government. The project is to create a park in Hong Kong to advocate the Arts and culture. This project has already been ongoing for five years, yet now the completion date has been postponed and the project went over-budget. He mentioned that the media and news are criticizing the project planning, the shareholders are complaining, and the government is also questioning. Pressures from different stakeholders make him feeling constantly stressed.

Why does the Subject want to participate? – He is currently experiencing severe stress and insomnia. Medication was not very helpful. He also wants to find a natural healthier alternative to fix his sleeping problem. He hopes that meditation can relieve his stress and enable him to make better decisions with increased focus and clarity.

Subject 3: Senior Manager at AIA Insurance Company

Role & Situation – As a senior manager at AIA, Subject 3 constantly have to meet monthly quotas and targets set by the branch manager. She is also in charge to recruit and train her team. On top of that, she is responsible to maintain excellent customer service for existing customers. If targets are not met by her, or members of her team, the branch manager will have the whole team on stage to lecture them. The branch manager would also assign punishments to the team. Although she has been in the industry for almost ten years, yet the summer interns she hired this year are rather difficult to manage with. This is because, as a team, a certain number of insurance deals are expected to be met. Yet, after training the interns to be certified agents, many choose to quit the internship since their quotas cannot be met. Therefore, leaving Subject 4 very stressed as the whole team might fail to meet the set target, while she is finding a difficult time balancing work and life.

Why does the Subject want to participate? – She heard a lot about Meditation, but have never explored it on her own. Participating in this study would give her insights into meditation, while hopefully aiding her to be less stressed. One major driver that triggered her to participate in the study is because she is fascinated by the idea that by not actively using her mental power is actually a way of improving her brain. She wants to experiment how can she increase her mental power, and hopefully also improve her work performance. If the results are positive, she hopes to introduce meditation to her team as a means to reduce their stress. She has always tried to find ways to improve the wellbeing of the team, such as organizing a sports event, offering to counsel and subsidizing healthy lunches. Hopefully, meditation can offer another way for her team to improve their wellbeing.

Subject 4: NYU Student intern at Ernst & Young

Role & Situation – As a rising senior at NYU, Subject 4 takes on four summer courses and a full-time internship at Ernst & Young. The number of essays and assignments are often overwhelming as she has to complete them after a 9-6 long work day. Besides, as an advisory and auditing intern at Ernst & Young, it is rather challenging for her. She has no prior experience in the field, but the manager trusts her enough to give her the autonomy to take up important responsibilities. Since the manager is really busy, so instead of seeking her manager for help, she attempts to complete the task on her own. The lack of structure and the full responsibilities are aspects she enjoys about the job as she gets to experiment and provide original contributions, but this situation also makes her extremely stressful as she fears that she will underperform.

Why does the Subject want to participate? – Subject 4 had previously exposed to meditation in various forms. Her mom's Buddhist religious belief influence her to begin to explore meditation in the hope to achieve enlightenment and epiphanies. She also tried meditation retreat sessions for mindfulness practices. She has always heard of the benefits of meditation physically or mentally in terms of improving well-being, reducing stress and being more productive. However, she just lacks the persistence to make meditation a habit. Therefore, she wants to participate in the study to use it as a means to commit to the practice.

Subject 5: New York Writing and Literature Professor and Fitness Specialist

Role & Situation - Subject 5 is not overstressed in terms of lifestyle because she spends 5 hours a day on the fitness and health science career with lots of exercise and 5 hours reading, writing, and teaching online, often in quiet labs and libraries. She is very hardworking as she works 24-7 and cannot afford vacations. Currently, she is writing a novel with homeless characters and thus must keep a tight budget. She eats half of her meals with the homeless and often fears she will be homeless with a turn of bad luck. That can be stressful but it puts perspective on her problems.

Why does the Subject want to participate? – Subject 5 took a meditation course with audio training recently that related meditation to cognitive science. She also used to teach yoga for 15 years and always ended with meditation. It is easy for her to relax all muscles and slow down her breathing. However, if there is a lot of interpersonal stress where her jobs are threatened, she may lose sleep. She would meditate to dissolve at the moment but the stress returns so proactive, realistic problem solving is also necessary. In contrary to the slow breathing practice type of meditation, her best meditation is when she is teaching a hard kick-box class to good students, performing poetry she has written, dancing well at the end of a ballet class, reading a great novel, or rejoicing in the successful completion of one of my students' research papers. All these activities are Western "narratives" that go against the Buddhist practice of an empty mind. She is healthy but hyper so she needs some of these exercises to slow down. Constantly, she is searching for innovative ways to meditate and use the mind well.

*Singing is a form of meditation... apparently, the only one that I have command over.*

—Brandi Carlile

*I see martial arts as moving forms of meditation. When you're sparring or drilling techniques, you can't think of anything else.*

—Joe Rogan

*Meditation is really letting go of all the thought processes or 'mind traffic' that gets in the way of just whatever is between you and space and consciousness.*

—Trudie Styler

## **Propose Solution for Each Subject**

Brandi Carlile and Joe Rogan show how the form of meditation varies between people, it could be adopted in singing and martial arts. It all comes down to being present and focus at the moment of what one is doing. Like how Trudie Styler puts it, clearing the path “between you and space and consciousness”. So for each subject, I have proposed different solutions that are customized to their circumstance.

### **Subject 1: CEO of Hong Kong United Overseas Bank**

Subject 1 is a very fast paced person, it would be difficult to have her change her habit and lifestyle to slow down. Therefore, I would suggest her to take on movement meditation. The most direct way would be to cultivate an exercising habit. Boxing or/and dancing would be suitable for Subject 1 because these two kinds of sports require full concentration in the present but is more dynamic than sports like swimming and running. Exercising also triggers the brain to release endorphin that helps to reduce pain and stress. Furthermore, I would suggest Subject 1 to create a habit in life to remind herself to pause and relax as a means to minimize the chance of burn out. For instance, she can exhale a long breath whenever she looks at her watch, opens the email app, or gets on a transportation vehicle. By exhaling the long breath, she would be able to gather her conscious mind and be present. This action also helps to release the tension in her body.

### **Subject 2: An Executive Director at Henderson Land Development Company**

Since Subject 2 is constantly under stress and needs to always manage emotions from different stakeholders. At times, this could be overwhelming and exhausting if he could not properly manage all of these emotions. Therefore, I would recommend him to acknowledge and be conscious of the emotions that he feels instead of being consumed by all kinds of emotions. For instance, when he has to address the media's concerns, he may mindfully notice his anxiousness. By realizing and acknowledge the emotion, he can learn to detach himself from the emotions, which can make his judgments and decisions more objective. In order to address his insomnia and other stress issues, I would encourage cultivating a habit to take 10 minutes prior to sleep. This could give himself some private time to not focus on work, and relax before sleep. To prevent his mind from wandering and thinking about work, he could count numbers from 1 to 10, increasing the number on every inhale and exhale, then repeat from 1. Counting numbers could

also make him more focus. At the same time, I would also suggest playing white music in the background and diffusing aroma scent in to create a relaxing atmosphere.

#### Subject 3: Senior Manager at AIA Insurance Company

Subject 3 can dedicate 10 minutes to meditate prior to work. This can help her recollect her mind and kick-start her day in a fresh and clearer mind. Subject 5 hosts a briefing session every morning with her team. Hence, I would suggest Subject 3 to incorporate a short meditation practice with her team. By doing so, they can reduce the stress and emotions resulted from the need to meet quotas. This way the team and Subject 5 may not be consumed by their emotions and stress, therefore enabling them to zoom out to find solutions in a larger picture.

#### Subject 4: NYU Student intern at Ernst & Young

Subject 4 has previously exposed to traditional Buddha meditation and tried retreat sessions, but failed to cultivate the habit of meditating. Hence, the silent and static type of meditation might not be the most suitable for her, especially when she enjoys having a packed and productive schedule. At times it could be overwhelming, but she rather is involved in different activities than not doing anything. So I would recommend her to try a variety of activities. Dancing and boxing would be suitable for her as she enjoys being active. Yoga and singing could be other alternatives that emphasize on deep breathing. These activities would enable her to pause and slow down in her busy lifestyle.

#### Subject 5: New York Writing and Literature Professor and Fitness Specialist

Subject 5 is very active and love to be involved in a variety of activities. The traditional breathing technique could be useful for her, but cultivating a habit to merely sit and meditate might not be a very appealing idea compare to other meditation alternatives. Therefore, I would recommend her to slow down by painting and singing. These two activities can keep Subject 5 active but not as hyper. Also, since she already spends 5 hours a day on her fitness and health science career, suggesting other exercising would be less appropriate and efficient to help her realize the benefit of meditation. Painting and singing require strong focus which can help cultivate the habit of being mindful at the moment. For painting, I would suggest playing white music in the background and diffusing aroma to help relax Subject 5. Watercolor might be suitable for her since the painter needs to paint before the water dries. This challenging and fast-paced of painting would be more suitable for Subject 5 compare to sketching and oil painting. While singing requires the use of the diaphragm, which involves deep breathing. This can enable Subject 5 to pause and relax from her physically active lifestyle.

*“The great solution to all human problems is individual inner transformation.”*

*—Vernon Howard*

*“Meditation is a way for nourishing and blossoming the divine within you.”*

*– Amit Ray*

### **Customized Solution for Everyone**

Vernon Howard emphasizes that the great solution to all human problems requires individual inner transformation. Everyone's problems differ according to their background and experiences, there is no one size fit all solution. Furthermore, inner transformation reminds me of meditation as it is a process for nourishing and blossoming the divine within us as stated by Amit Ray. Many workers encounter stress situations like the five subjects, hence it would be beneficial to have resources available to them to find their customized solution to relieve their stress. In order to find the most suitable meditation method and a most accessible way for all, Artificial Intelligence (AI) in an app would be the most suitable technology as it can customize the meditation method for practitioners. Artificial Intelligence is "advanced machine learning software with extensive behavioral algorithms" (Adams, 2017). The Artificial Intelligence algorithms would be able to curate exercises and experiences that fit the practitioners' specific needs and experience.

A phone app can be created to test what is the most appropriate meditation type for the practitioner. The app should provide a test for the user in order to learn about the users' habit, lifestyle, interest, and preferences. For instance, if the user prefers to be more active, movement meditation would be proposed rather than traditional breathing techniques. With the information about the user, the app could propose the most suitable meditation practices that are customized to the users' schedules, personalities, and routines. The AI technology could also offer to track the users' progress over time in order to cultivate habits and stay focus on their long-term goals. I will provide an overview of what potential app can be made.

In order to create the test for finding the suitable method using algorithms. Scenario questions would be asked to obtain a better understanding of the users' behavior and preferences. There will be three sections with three questions each.

### 1. Lifestyle Preferences

Would you prefer to wake up at 5:00 am or sleep at 5:00 am? (This question aims to understand whether the user is a morning person or a night person)

Are you a disciplined person or spontaneous? (This question aims to understand whether forming a habit or switching different methods is preferred)

Generally, do think your attention span is short (less than an hour) or long (more than an hour)? (This question aims to understand what is the preferred time length of the meditation practice)

### 2. Favorite Activities

Would you rather stay indoors or outdoors? (This question aims to understand what kind of environment does the person prefer)

Are you more of an active person or an inactive person? (This question aims to understand what kind of activities does the person prefer)

Do you prefer a packed schedule or a relaxed schedule? (This question aims to understand whether the person is fast-paced or not )

### 3. Stress Indicators

Are you comfortable coping with unexpected situations? (This question aims to understand how well can the person manage stress)

Do you find yourself easily stressed over minor issues? (This question aims to understand what is the stress tolerance of the person)

Do you feel stress when you are around people for too long? (This question aims to understand whether the person is an extrovert or introvert)

#### 4. Goals

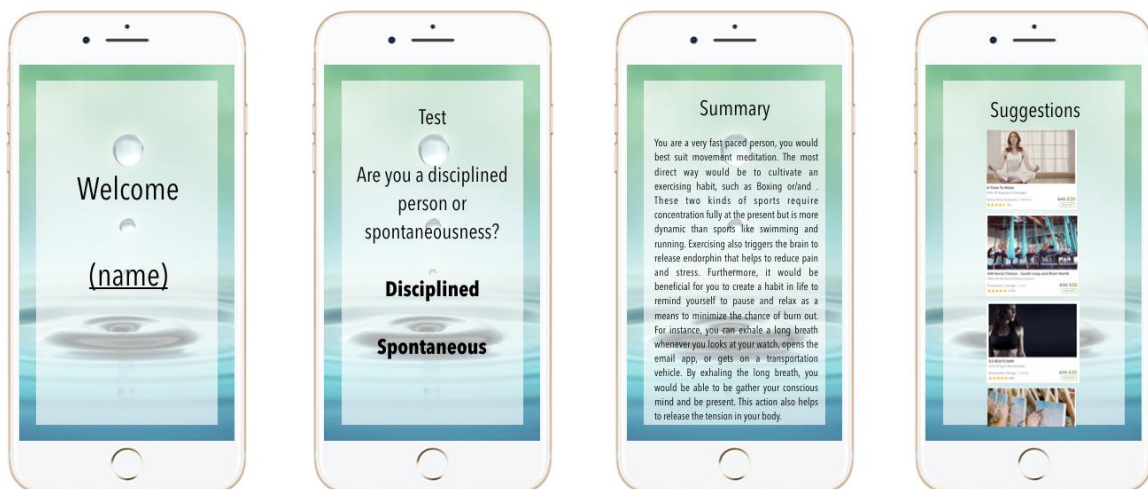
What are you trying to achieve?

	Low Priority 1	2	3	4	High Priority 5
Improve wellbeing	1	2	3	4	5
Improve concentration	1	2	3	4	5
Stress relieve	1	2	3	4	5
Be more patient	1	2	3	4	5

These questions are rough drafts. If this research were to be continued, more sections and questions would be asked to obtain a more comprehensive understanding of the user. It would also be essential to check whether the wordings of the questions are misleading and whether there are correlations between the questions asked and the intended purpose. The test should be tested with a sample group to seek for feedback. Then, the Partial Least Square statistical analysis can be utilized to identify trends as it is a popular method for market research. The Partial Least Square statistical analysis is used especially in situations where data information is minimal, lacking and correlated. It serves to show how different variables and measures are related to one another.

The graphics below are the prototype of the app's interface.

First, there will be a welcome page that let the user type in his/her name, so that the user feels



personal. Then the user needs to complete the test for the app's AI algorithm to match the users' preference with activities. After the test, there will be an overview of the users' lifestyle and proposed suggestions. Then lastly, the app will link to related activities, classes, and events that the user can participate in. Besides these proposed activities, there will also be traditional meditation guide in the app that let the user use whenever they want to do breathing meditation practice. A website version of the app will also be developed.

*Life is 10% what happens to me and 90% of how I react to it.*  
—Charles Swindoll

### **Subjects' Feelings and Comments After the Experiment**

#### **Subject 1:**

She feels like it is really helpful to take a deep breath whenever she opens an app or does a particular action. This constantly reminds me to relax. Also, she feels like she is happier and less anxious since she is pausing more to be in the present instead of rushing through my moments.

#### **Subject 2:**

His insomnia has improved, especially with the help of aroma. He thinks that he is happier as he learned to detach himself from emotions.

#### **Subject 3:**

She finds that taking 10 minutes meditating in the morning before work make her more focus throughout the day. She plans to make it a daily routine during the team briefing to let other team members try out mediation.

#### **Subject 4:**

She finds boxing very suitable for her as it requires her being very focused. The exercise increased her focus of which she found it had a spillover in her work. She is able to concentrate on tasks longer. Furthermore, she feels like she is able to be more mindful of her tense shoulder and neck.

#### **Subject 5:**

She is more in the moment but still worrying about the future. She already read a book Meditation for Fidgety Skeptics. She also took on the suggestion to paint but with words. She thinks that being in the moment can be painful when someone is doing her harm. She has learned to practice loving-kindness (after getting rid of her anger by teaching kickboxing) towards the person or institution although forgiveness can be challenging. Being in the moment can be painful if she is suffering physically or mentally. She tries to alleviate suffering when the moment is good, she exults in it.

*I lived in the present, which was  
that part of the future you could see.  
The past floated above my head,  
like the sun and moon, visible but never reachable.*

*—Landscape by Louise Gluck*

## **Conclusion**

Although the study was rather short, the effect of meditation can still be seen from the feedback provided by the subjects. Many expressed that they are happier and feel less stressed. Although these results may seem minor, they have a significant spillover effect. For instance, happier and less stressed labor can potentially increase productivity. Also, the positive change in their mood would also make their co-worker more positive. Hence, a more positive working environment translate into more motivated and committed workforce. Ultimately, the worker performance would improve and so as the company's overall performance.

There are many limitations of this study. First of all, the time frame is rather short, hence it is difficult to see any significant difference. Second, the journals are self-reporting, which can have self-reporting bias. The customized solution might not be the most appropriate, the subject would still need to experiment to see what best suit them.

For future study, I would want to try to actually implement a meditation program in different companies and analyze the impact it has on the workforce. Furthermore, I would also want to explore more into the effect of aroma, music, crystal to test whether additional resources could actually have an impact in magnifying the benefit of meditation.

I highly recommend everyone to meditate in order to experience an inner transformation.



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