

Ideation, Creativity and Mindfulness:

Investigating the Influence of

Mindfulness Practice on

Design Education

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## Abstract

This thesis research project is an investigation of the influence of mindfulness practice within the context of design education. Mindfulness is a present-moment and non-judgmental awareness. The project explored the connections between mindfulness practice, ideation, and creativity through semi-structured interviews, with mindfulness practitioners, design educators and an educational specialist as well as an exploratory workshop with design students from the Department of Art and Design at the University of Alberta. One objective of the research was to develop a framework showcasing mindfulness practice as a visual aid to help explain the concepts to design educators and students. Another objective was to identify the extent to which mindfulness practice is already incorporated into design education. Throughout the process of investigation, themes related to mindfulness were identified. Connections were then made to the concept of ideation and creativity.



## Introduction

Many people try to find peace in this frantic world, especially in Western culture that values action and accomplishments so highly. One consequence of a busy lifestyle is that our minds are also busy, cluttered and distracted which hinders our ability to sustain attention and present-moment awareness. Whether we are ruminating on the past or planning for the future, it is easy to catch our minds wandering and not paying attention in the present moment. Fortunately however, focused attention can be trained.

Research has started to investigate mindfulness practice, or also known as mindfulness meditation, as a method for bringing our attention back to the present moment and improving other behavioural and cognitive processes. Mindfulness can be understood as the skill of maintaining attention towards immediate experience and an open and accepting orientation towards one's experience of the present (Key and Pedgeon, 2013). It has been practiced for thousands of years and its roots stem from eastern philosophy, but it has made its way into the mainstream, secular world in the last few decades. Mindfulness has now been researched within various disciplines, particularly the field of psychology, along with medicine, neuroscience, counselling, entrepreneurship, organizational development, as well as education.

A lot of mindfulness research focuses on how it ameliorates stress and anxiety. There are some studies that highlight the intersections between mindfulness and creativity, but these studies are not aimed at specific disciplines such as design and design education—the foundation of this Master of Design (MDes) thesis project. Within the context of design education, students typically use different ideation techniques to help them generate novel and creative ideas while designing. Within design curricula there are some analytical techniques for generating creative ideas. These ideation techniques exercise certain analytical processes in the brain; however, it is possible that this may limit a student's creative process. This is because they exercise only certain parts of the brain. By quieting the mind through the mindfulness practices, a student may boost his or her creative flow and therefore ideation ability.

Using an ideation and instructional technique, such as mindfulness practice, could help design instructors guide their students to think divergently which may facilitate the creative problem-solving process. Through this thesis project research—by way of semi-structured interviews with mindfulness practitioners, design educators, and an education specialist, as well as an exploratory workshop with design students. The aim was to explore and discover themes related to mindfulness practice and their connections to ideation and creativity in order to create a visual framework that would introduce mindfulness practice and its related concepts to design educators and students. Additionally, this research explores the extent to which mindfulness practice is already incorporated into design education as part of creative process, and specifically design pedagogy related to visual communication and industrial design.

# 1. Background

## 1.1 Defining Key Terms

### **Beginner's mind**

Beginner's mind means to cultivate an attitude of seeing things as if the for the first time so as to be alive to unforeseen or previously unacknowledged possibilities in experience (Kabat-Zinn, 1990). According to Stefik and Stefik (2005), it has a sense of playfulness, lightness and receptivity.

### **Contemplative pedagogy**

"Contemplative pedagogy uses forms of introspection and reflection that allows students to focus internally and find more of themselves in their courses. The types of contemplation are varied, from guided introspection exercises to open-ended multistaged contemplative reading (i.e. lectio divina) to simple moments of quiet, as are the ways in which the practices are integrated into classrooms" (Barbezat and Bush, 2014, p. 9–10).

### **Creativity**

Being creative means to develop new and worthwhile ideas and this could be the creation of either incremental or radical concepts (Piirto, 2011).

### **Ideation**

Ideation is the creative process of generating, developing and communicating new ideas, where an idea is understood as a basic element of thought that can be either visual, concrete or abstract (Jonson, 2005).

### **Mindfulness**

The awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment-by-moment (Kabat-Zinn, 2003).

### **Mindfulness practice**

Mindfulness practice, also known as mindfulness meditation, has been described as the intentional process of observing, describing and participating in the present-moment nonjudgmentally. Formal mindfulness practice mainly includes sitting meditation, along with walking meditation, body scan meditation and yoga. Informal practice refers to bringing mindfulness to daily activities such as eating, driving, washing the dishes, talking on the phone, etc. (Dimidjian and Linehan, 2008).

## 1.2 Context: Mindfulness and Me

I was first introduced to meditation as a way to cope with severe and debilitating anxiety in my late teenage years which prevented me from engaging in most social activities and undertaking everyday tasks. The onset of the anxiety was immediate and abrupt and this led me into therapy for an 8-month period of time. My therapist introduced me to basic breathing meditations that were guided by an audiotape—and even though my anxiety remained present during meditation practice, I was able to manage my stress and successfully continue fashion studies at Lethbridge College. I was also able to expand my knowledge of meditation as I began to practice walking meditation around my neighbourhood. Mindful walking helped me calm my mind and allowed for creative ideas to flow more easily. I remember the day that I conceptualized a fashion design collection. It was that day that I went for an hour-long walk that I envisioned an entire runway collection (twelve different outfits) without formal sketching or using other ideation techniques. I eventually sketched out each outfit in order to refine the ideas; however, most of the brainstorming happened after walking mindfully. The garments were showcased at the Lethbridge College end year fashion show.

Unfortunately, the anxiety flared up again at different points in time after the initial therapy due to life stressors and I saw 3 additional therapists during my early adulthood. As I attended more therapy and practiced relaxation meditations on-and-off for 5 years, I gradually ameliorated and eliminated most, if not all, of my major symptoms. It was not until 2013 that I became acquainted with “mindfulness meditation” during a short visit to the University of Alberta’s (U of A) Clubs Fair. The Mindfulness Meditation Student Group (MMSG) was advertising weekly meetings at the Fair and, since I had personally experienced some benefits of meditation, I decided that it would be a great opportunity to connect with other students who practiced it and so I became a member in the Fall 2013 term.

Even though the MMSG is a nondenominational group, its members embrace mindfulness concepts that are derived from different viewpoints, including ones with traditional and secular origins. Because of the group’s diversity and openness to ideas, I, along with many other group members, were inspired to explore mindfulness meditation beyond its practical reasons (e.g. ameliorating anxiety) that are associated

with Mindfulness-Based Stress Reduction therapy. I felt compelled to investigate Kabat-Zinn's viewpoints that intersected with Buddhist practices and teachings and I joined another group in the city—the Happy Hearts Sangha which is an Edmonton-based mindfulness group led in style of Zen master Thich Nhat Hanh.

My personal experiences proved to be eye-opening in that despite certain skepticism in the traditional mindfulness community with regard to the secularization of mindfulness, I sensed a harmonious relationship between secular and traditional approaches as well as scientific and religious communities. Toni Bernhard (2013, p. 10) writes: "Science and religious traditions are in agreement that impermanence, chance, and the uncertainty they imply are experiences common to all humans." This statement resonates with me in that it expresses one root cause of anxiety that I grappled with: my relationship to the uncertainty of experiences within life. As I connected with more members from the MMSG, it became evident that my story mirrored other people's stories. Many meditators that I knew who were also introduced to mindfulness for practical reasons, and those who experienced some benefits of mindfulness practice, eventually became motivated to explore its philosophy and traditional underpinnings. Furthermore, one can be introduced to mindfulness for practical reasons initially, such as to increase attention, creativity as well as manage stress, and taught in different contexts such as the workplace, classroom or therapy sessions, which can then act as a gateway to other meaningful aspects of mindfulness practice. Some of these benefits may include the cultivation of compassion and deep insight. Though, investigating the depth of mindfulness is a personal decision and journey.

Because of my enthusiasm for mindfulness meditation, I became an active member in both groups. I undertook two different roles: the communications coordinator for the Happy Hearts Sangha as well as a weekly presenter for the MMSG. I developed and delivered MMSG presentations on my areas of interests including *Mindfulness in Education* and *Creative, Art-Related Meditation Practices*. I first began exploring creative, art-related mindfulness practices after watching an art film in a local independent movie theatre. The film is called *Visitors*. At that time in my life, I was experiencing an ongoing personal issue which I had a

difficult time untangling and resolving. After watching the film, which felt hypnotic because of its back and white images of emotionally-nuanced sceneries and faces, I experienced a profound sense of calm and insight.

These mindfulness in education and creative meditation interests mirrored other topics that I had investigated during my undergraduate degree related to design education and creativity in design practice (as part of self-directed design projects and courses). I continued to explore these topics in the Master of Design (MDes) degree program. In my first year of the MDes program, I began to investigate these interests thoroughly through several self-directed research projects and courses. I undertook two major projects that were entitled *Exploring Everyday Creativity through Design Thinking* and *Practice-Led Research: Investigating Art-Based Mindfulness Practice in Design Studies*. During the last semester of my graduate course work, I enrolled in a self-directed design course in order to examine design-based learning environments and techniques for fostering creativity into these settings. As part of my final research project in the course, which involved secondary research and expert interviews, I created a visual model that illustrated aspects of student engagement in learning environments. One of my findings was that mindfulness, creativity and student engagement are connected. The specific relationships between the connections were not explored in the research project; however, I became more fascinated by the topics after investigating them in the self-directed course.

Around this time, I decided to run for the President of the Mindfulness Meditation Student Group, enroll in an academic course at St. Stephen's College called *Mindfulness for Teachers* and attend local mindfulness retreats. I was elected for the presidential position for the MMSG 2014 to 2015 term, which allowed me to become a mindfulness ambassador on campus and connect with many different U of A mindfulness researchers and practitioners in that field.

Throughout the year, I led weekly meditations, presentations and invited mindfulness practitioners to join the group in order to network with the group's members. As the President of the MMSG, I also participated in many health-related, on-campus events as a way of sharing information with the U of A community. Some of these events included *Unwind Your Mind*, *Lister Mental Health Week*, *Wellness Wednesday*, *Health Week 2015*, and the *SU's Open Conversation on Mental Health*.

Additionally, since I work as a Career Advisor at CAPS: Your U of A Career Centre, I was able to integrate mindfulness into my role by writing two articles for the website about mindfulness as it relates to career development. I also helped create a Wellness and Mindfulness module for a new transition to career program. Because many full-time staff members seemed to connect with the concept of mindfulness, I was asked by the career centre's Director to design and deliver a 1-hour workshop on mindfulness in the workplace for CAPS employees. I received positive feedback and the Director suggested I submit a proposal the Student Advisors' Conference, which was accepted. At the conference, I gave a 50-minute presentation on Mindfulness Practice in the Workplace for Student Advisors. Since the conference, I have been asked to present at other on-campus events including a session entitled *Mindfulness in the Classroom* for the Faculty of Graduate Studies and Research during Teaching and Learning Week.

Another notable mindfulness endeavor that I undertook was a collaborative proposal submission for a U of A Wellness Project Grant. In collaboration with Professor Billy Strean (Education Director, Integrative Health Institute) and Dr. Mel Lewis (Associate Dean, Learner Advocacy and Wellness), we were awarded the grant in March 2015. Because of our connection through the Wellness Project Grant, Strean invited me to participate in an on-campus mindfulness group for faculty and staff. All of these experiences and endeavors were recognized by the U of A's Student Union and in turn, at the end of the Winter 2015 term the MMSG was given the Student Group of the Year Award (one of 400+ groups on campus).

While exploring mindfulness practice throughout 2014, I thought about ways to apply this knowledge to a classroom setting. I had the opportunity to teach a studio-based course, called Design Fundamentals, which introduces students to the foundations of 2-dimensional and 3-dimensional design. As part of an experiential learning pedagogical approach, I guided students through various mindfulness practices such as breathing, drawing and eating meditations. The meditations were linked to a design project that I devised in which students were instructed to create visual concepts for a local public awareness campaign. Students were required to "journal" in their sketchbooks. I received positive feedback from most, if not all of the students. I had a few other opportunities to introduce mindfulness in the classroom. In the Spring

2015 term, I guest lectured four times for two different design courses where I led various mindfulness and ideation-related practices including free-writing, art-making and eating meditations.

Near the end of the Spring 2015 term, I experienced an unexpected event that led to a significant amount of mental and emotional turmoil. During this time I endured a resurgence of anxiety that I had a difficult time ameliorating. I realized that, after engaging in and promoting many mindfulness-related endeavors over the last year, I had lost track my own personal meditation practice. Despite feeling emotionally distressed, I had an opportunity to re-establish and enhance the quality of my meditation. For a few weeks, I pulled back on many, if not all, of my work and school commitments and dedicated most of my time and energy to practicing various mindfulness practices including free-writing, breathing, walking, and body scanning meditation. The following week I sat in on a short meditation retreat led by Dharma teacher Steve Armstrong that included two full days of meditation practice and teachings with other community members. It was a positive experience for me in that I was able to practice many ideas shared by the mindfulness practitioners that I interviewed for this thesis project. Through the experience, I gained a sense of equanimity, mental clarity and most importantly, new insight. I have continued with formal and informal daily meditations.

My journey with mindfulness has proven to inspire to me, which is why I decided to centre my research on the topic. All of the personal, professional and academic experiences related to mindfulness, creativity, and design education helped fuse my interests together and frame this thesis research topic and project.



## 1.3 Literature Review

### 1.3.1 IDEATION AND CREATIVITY IN EDUCATION

#### *Ideation and creativity*

Being creative means developing new and worthwhile ideas, which could be either the creation of incremental or radical concepts (Piirto, 2011). According to Cropley (2001), Emeritus Professor of Psychology at the University of Hamburg, creativity encompasses the following core elements: novelty, effectiveness, and ethicality. *Novelty* can be achieved through the development of creative products, courses of action, or ideas that depart from the familiar. *Effectiveness*, in relation to creativity, is creating something that works in the sense that it achieves some end purpose (Cropley, 2001). *Ethicality* refers to how creativity is not usually used to describe selfish or destructive and negative behaviour (Cropley, 2001). Piirto and Cropley's concepts suggest that there is a direct link between creativity and the generation of ideas. Creativity involves the process of developing new ideas, which is also known as ideation. More specifically, ideation is the generation, development, and communication of new ideas, where an idea is understood as a basic element of thought that can be visual, concrete, or abstract (Jonson, 2005).

Individuals who are required to be creative in their work may experience moments when creativity is inhibited. This inhibition of creativity is sometimes referred to as experiencing a "creative block". According to Cannistraro and Rauch (2003), anxiety is highly associated with creative blocks. Depression is also associated with creative blocks and when it is treated, creativity usually improves as normal levels of motivation return (Goldapple et al, 2004). More common factors that might inhibit creativity include feelings of insecurity, fear of failure or criticism, hyperactivity or lack of faith in self (Crosson, 1987). Therefore, ameliorating stress-related psychological conditions could help someone overcoming this block. It may also help to use different ideations techniques to generate new ideas.

Some common techniques or procedures for generating ideas that can be learned include *brainstorming*, *KJ method*, *mind maps*, the *hierarchical method*, and *creative problem solving* (Cropley, 2001). Classic *brainstorming* is usually a group activity in which each member of the

group is encouraged to put forward ideas without any constraint, no matter how implausible. In the *KJ method*, named after and devised by Professor Jiro Kawakita in the 1960s, individuals write their ideas for defining the core of a problem on cards. The cards are then sorted into sets containing conceptually similar statements and given a label that summarizes the essence of the concept (first phase). The second phase of the KJ method involves sets of solutions that are constructed in the same way as the problems. For *mind mapping*, a central theme is written down and then a “spray” of associations is connected to that theme and recorded, then each association acts as a new spray for more associations. The *hierarchical method* involves a strong element of organization and structure in comparison with the previously mentioned techniques, and it is based on a hierarchical organization of ideas, instead of masses of ideas or associations (Cromptley, 2001). The *creative problem-solving* techniques involve steps that can be applied in a systemic way of finding, investigating, and solving problems (Cromptley, 2001). Creativity and problem-solving are related because, according to Craft (2006), “it is creativity that enables a person to identify appropriate problems and to solve them” (p. 20).

Chair of Engineering Education at the University of Western Australia, Caroline Baillie (2006), outlines other idea-generating exercises in her chapter in the book entitled *Developing Creativity in Higher Education: An Imaginative Curriculum*. Some of these techniques include *reversals*, *analogies*, and *action planning through fast presentations*. In *reversal techniques* someone is asked to reverse a problem as a way to stimulate different ways of thinking about a topic or issue. So, a problem statement such as “How can we get students motivated to learn?” might end up as “How can we prevent students from being motivated to learn?” *Analogies* are useful for explaining difficult concepts and finding similarities between features of two things, on which a comparison may be based. This can help someone generate ideas. *Fast presentations* are when someone is given a short amount of time to think about an idea and action plan that presents answers to the following questions: What is the goal? What is the positive effect of the action? What are the negative effects? How can these be turned around? And what are the expected gains? (Baillie, 2006).

Many of the aforementioned ideation techniques discussed by Cropley and Baillie appear to be mind-oriented but, there are other approaches, according to Baillie, which she calls “the mind and body approaches.” “Exercises involving deep breathing can increase awareness of the body and a feeling of being ‘centered’” (Baillie, 2006, p. 150). Being centred is about feeling balanced, content and “comfortable in our own skin”. Baillie suggests that we spend too much time in fruitless activities and thoughts instead of on more positive and creative ones. One mind and body exercise that she describes starts by asking individuals in a group setting to stand and breathe in an open and relaxed manner. Then, in pairs, individuals move into one another’s personal space, slowly and respectfully, while maintaining eye contact with one another. One person pushes the other person gently and applies different pressures from their side and front. After a while, their partner is instructed by the group facilitator to ask questions about a problem or issue. The concept behind this exercise is that individuals may experience a switch from sensory to cognitive processes that may help them understand the distinctive nature between the two. This would allow them to build an awareness or greater insight about how they are feeling in the present moment. According to Baillie, these exercises can “help to promote a general creative potential by freeing us of tensions; they are also intended to promote confidence and encourage deeper insights” (p. 150). Mind and body approaches are often the most difficult for participants to relate to and the least structured or rational. Though, this approach can work well if judgment is suspended (Baillie, 2006).

### *Systems thinking in education*

Creativity and ideation are important in educational contexts because young people have to learn how to relate and apply past ways of knowing to a constantly changing kaleidoscope of new ideas and events, and that requires learning to be creative (Csikszentmihalyi, 2006). Norman Jackson (2006), Emeritus Professor at University of Surrey, believes that students’ experience of higher education and their future lives will be enriched if teachers help them experience and develop more of their creative potential. “We believe students will become more effective learners and, ultimately, successful people if they can recognize and harness their own creative abilities and combine them with more traditional academic abilities” (Jackson, 2006, p. 1). He describes traditional academic abilities in relation to a systems theory that was developed by Peter Checkland, Emeritus Professor of Systems Engineering at Lancaster University, and specifically to what Checkland refers to as “hard systems thinking”.

A hard systems thinking approach is about defining, analyzing, and resolving problems within a conceptual framework that seeks to create a highly ordered real world (Jackson, 2006). Jackson suggests that in socially constructed systems, “the very nature and complexity of human thinking, action, and relationships defies such a rational and logical approach to the definition of the system and its behaviour” (p. 9). This relates to issues that Cropley addresses while discussing the “conventional education system” where he states that “conventional education systems hinder the development of skills, attitudes and motives necessary for the production of novelty. Among other things, they frequently perpetuate the idea that there is always a single best answer to every problem and that this can readily be ascertained by correct application of set techniques and conventional logic that need to be learned and then reapplied over and over again” (p. 160). According to Cropley, this approach is a shortcoming in higher education.

A ‘soft systems’ view of the world accepts confusion, diversity, and complexity and uses this as a resource and a source of inspiration to orchestrate inquiry and grow new learning. Soft systems theory does not see all new perspectives as problems to be solved. Rather, it sees different perspectives as routes that can be taken to open up and examine possibilities (Jackson, 2006, p. 5).

Jackson suggests that problems related to teaching and learning, including the problem of how we can improve conditions for creativity in higher education, requires a soft systems approach. Learners who wish to be more creative may also benefit by taking on a soft systems approach. The characteristics of this approach align closely with core attitudes that creative people possess including openness to experience, risk-taking, and tolerance for ambiguity (Piirto, 2011).

### *Design education and creativity*

Meredith Davis, Professor of Graphic Design at North Carolina State University, writes about the significance of design education in her article entitled “Making a Case for Design-Based Learning” (Davis, 2015). She states: “Design education offers a successful history of curricular innovation, proven pedagogy, and students’ achievement...” (Davis, 1998, p. 7). She adds that design educators have turned their attention to demonstrating how design pedagogy and the problem-solving processes of designers provide practical strategies for achieving the goals of

education reform in today's classrooms. According to Ryan Hargrove (2007), Assistant Professor of Design at the University of Kentucky, the pedagogy of design education focuses on fostering creativity. He says: "One of the most critical aspects of design education is teaching creative thinking processes" (p. 1). Therefore, according to Davis and Hargrove, design education may not follow traditional, conventional or a hard systems approach. This may be because design processes typically follow a soft systems approach. Davis suggests that a design process is an open-ended alternative to the scientific method. The disciplines of design and design education are unique in that if one focuses less on the objects that designers make and issues of style, one may find dynamic examples of learning and problem solving well-suited to an environment of ever-expanding information and great uncertainty created by the failure of traditional problem-solving models (Davis, 1998).

### *Experiential learning and creativity*

Students in design education programs typically learn through experiential learning processes. In other words, "in design education, a common notion of learning and teaching is referred to as 'learning by or through doing'" (Lyon, 2011, p. 7). The link between experiential learning and creativity has been researched and, in a study conducted by Ayob et al. (2011), students undertook certain design challenges to analyze how creativity was enhanced as a result of exposing students to an experiential learning environment. Over ten creativity traits were observed during the study, including the ability to produce and consider many alternatives, flexibility, openness, ability to put ideas into context, combination and synthesis and the ability to break boundaries. This study concluded that students' creative abilities have been nurtured and enhanced as a result of the problem-solving process involved in experiential learning activities. So, because design programs incorporate many experiential learning opportunities within their curricula, design students are given the opportunity to exercise their creative abilities within their education.

### *Enhancing students' creativity in design education*

It is important to explore new approaches to creativity and ideation in pedagogy. According to Hargrove (2007, p. 3), "design educators should seek out and explore effective models of education and problem-solving that challenge creative practices in the design curriculum".

Hargrove adds that in a culture of creative thinking, design schools and educators should imagine more effective teaching methods and learning objectives. “Instructional techniques in design remain in development and provide a framework for continued [pedagogical] innovation” (Hargrove, 2007, p. 2). This suggests that design educators should continually exercise their own creative abilities while developing instructional approaches in order to come up with new ways of facilitating ideation. This would add to the existing body of knowledge in the field of design education. “The innovative nature of design can serve as a basis for creating an improved design education that embraces creative thinking” (Hargrove, 2007, p. 2).

### *Challenges in design education*

Instructors should be aware that students in their classrooms might not come from educational backgrounds that foster creativity-based attitudes and learning approaches. These attitudes and approaches may be unfamiliar to those students who enter post-secondary education from conventional education systems or from non-design disciplines. As previously mentioned by Cropley, conventional education systems often do not encourage the development of skills, attitudes and motives necessary for generating new ideas. Cropley adds that in these systems teachers believe they know all the answers and that their duty is to pass on these answers to their students at the appropriate time. Consequently, students may become “mindless” while learning new information.

Ellen Langer, the first female professor to gain tenure in the Psychology Department at Harvard University (Langer, 2009), writes about the pervasive *mindlessness* that occurs within conventional educational contexts: “The mind-sets we hold regarding learning more often than not encourage mindlessness, although learning requires mindful engagement with the material in question” (Langer, 2000, p.220). Langer states that when we are mindless, “we are stuck in a single, rigid perspective, and we are oblivious to alternative ways of knowing...our behavior is rule and routine governed; when we are mindful, rules and routines may guide our behavior rather than predetermine it” (p. 220). In order to enhance pedagogy, even design pedagogy that typically fosters creativity, design educators should continually assess students’ aptitude for creativity-based learning and aid them in becoming mindfully engaged in the curriculum. This may help students awaken and enhance their creative thinking attitudes and abilities.

### 1.32 MINDFULNESS PRACTICE AND CREATIVITY

As previously mentioned, students entering design programs from other programs may have been overexposed to mindless education, holding them back from developing their creative potential. These programs emphasize learning that occurs “...through repetitive study; accuracy, increasing vigilance, construction, and unwavering focus; liking increase with ‘mere’ exposure” (Langer, 1993, p. 43). Langer and Moldoveanu (2000) indicate that mindfulness can help cultivate creativity, even within educational contexts. They state that “much of the research already conducted reveals the powerful effect of mindfulness manipulations on creativity, attention, and learning” (p.7). This section will highlight some of the literature that focuses on the origins of mindfulness, mindfulness today and the relationship between mindfulness practice and creativity. Following sections will discuss the integration of mindfulness practice in educational contexts.

#### *The origins of mindfulness*

According to Kabat-Zinn (2003), Molecular Biologist and Professor of Medicine Emeritus at the University of Massachusetts who introduced the use of mindfulness to the scientific community (Horstman, 2010), mindfulness is an awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally, to the unfolding of experience moment-by-moment. Even though mindfulness has gained popularity over the last few decades, its roots go back thousands of years to ancient Buddhist and meditation practices. Kabat-Zinn suggests that the practice of mindfulness resides at the core of the teachings of the Buddha who can be thought of as, among other things, a “...born scientist and physician who had nothing in the way of instrumentation other than his own mind and body and experience, yet managed to use these native resources to great effect to delve into the nature of suffering and the human condition” (Kabat-Zinn, 2003, p.145). Kabat-Zinn he has studied mindfulness meditation with Thich Nhat Hanh and other respected Buddhist teachers (Wilson, 2014a). Thich Nhat Hanh (1976) is a well-known Vietnamese Buddhist monk, whose lifelong effort to generate peace saw him nominated for the Nobel Peace Prize in 1967. Inspired by his teachers, Kabat-Zinn suggests that mindfulness, being about

attention, is also of necessity universal. “There is nothing particularly Buddhist about it. We are all mindful to one degree or another, moment by moment. It is an inherent human capacity” (Kabat-Zinn, 2003, p. 145–146). Thus, mindfulness can be practiced by anyone and is not exclusive to those who hold certain worldviews or philosophies.

Today there is an interplay between the traditional and secular views of mindfulness. Traditionalists, such as Thich Nhat Hanh, reflect on how mindfulness has an impact on not only Buddhist meditators, but also on our most noteworthy scientists. He suggests that great scientists have undergone internal changes like those who have been awakened. They can experience the achievement of profound realizations through the development of observation, concentration and awareness (Hanh, 2010).

It should be mentioned that even though mindfulness originates in Buddhist traditions, not all Buddhists practice mindfulness meditation. According to Jeff Wilson (2014b), Assistant Professor of Religious and East Asian Studies, the majority of Buddhists have never performed regular meditation practice. Mindfulness and similar forms of meditation were traditionally the domain of ordained monks and nuns and not the average people who make up the great majority of Buddhist societies.

### *Mindfulness today*

According to Murphy and Donavon (1997), the practice of mindfulness has gained popularity in North America since the 1960s. Its popularity has grown within the research community over the last few decades due to many of its known benefits and the development of mindfulness-based intervention programs. Kabat-Zinn developed one of the most notable programs in the late 1970s. He pioneered the secular use of mindfulness at the University of Massachusetts in 1979 to help medical patients cope with chronic pain, anxiety, and depression (Brown, 2007). The program that he created, which is still used today, is called Mindfulness-Based Stress Reduction (MBSR) therapy which is a renowned, 8-week program that can be effective in reducing psychological symptoms among anxiety (Kabat-Zinn et al., 1992). Some people believe that mindfulness ameliorates or reduces anxiety by strengthening one’s courage and skill to look; to look into the discomfort rather than away from it (Claxton, 2005). When we look into an experience, we are accepting it for what it is whether it is pleasant or unpleasant. Well-known Buddhist monk and meditation teacher Ashin Tejaniya (2011) supports this idea by stating:



Mindfulness meditation is not about stopping a process that is happening but about understanding the reality or the truth of that process...we [as meditators] are not meditating to get rid of objects [of the mind]...we practice to recognize and to understand the nature of whatever is happening (p. 117).

An aspect of looking into an experience rather than away from it is what Kabat-Zinn refers to as *nonjudgmental awareness*, which means that instead of constantly judging our inner and outer world, we should let go of such mechanical reactions and just be with, and open to, an experience (Kabat-Zinn, 1990). “Pure mindfulness is relaxed, open, lucid, moment-to-moment, present awareness. It is like a bright mirror: nonclinging, nongrasping, nonaversive, nonreactive, undistorted” (Das, 1997, p. 300). In theory, paying attention in the present moment is simple and straightforward; however, it can be difficult to practice because, according to Davis (2014), author of the article “Mindfulness in Higher Education: Teaching, Learning, and Leadership”, many forms of mindfulness include the practice of single-pointed concentration, silence, and quieting the mind.

The practice of mindfulness, which by some is also known as mindfulness meditation, relates to different aspects of attention such as the ability to sustain one’s attention, as well as the ability to reduce proneness to distraction (Moore and Malinowski, 2009). Distractions, especially in a digital era that offers us an abundance of technological devices to stimulate our minds, are difficult to overcome at times and “...the distractions to daily practice in today’s world can be challenging” (Sarath, 2006, p. 1832). Fortunately, with practice and patience, it is possible to cultivate an attitude of mindfulness. Formal mindfulness practice primarily includes sitting meditation, along with walking meditation, body scan meditation and yoga. Informal practice refers to bringing mindfulness to daily activities such as eating, driving, washing the dishes, talking on the phone, etc. (Dimidjian and Linehan, 2008). As an example, Thich Nhat Hanh describes the experience of washing one’s hands mindfully this way:

Wash the dishes relaxingly, as though each bowl is an object of contemplation. Consider each bowl as sacred. Follow your breath to prevent your mind from straying. Do not try to hurry to get the job over with. Consider washing the dishes the most important thing in life. Washing the dishes is meditation. If you cannot wash the dishes in mindfulness, neither can you meditate while sitting in silence (Hanh, 1976, p.85).

Another informal mindfulness practice can be done through listening. In an interview between Oprah Winfrey and Thich Nhat Hanh (2012), Hanh describes what he refers to as deep listening in the video recorded interview. “Deep listening is the kind of listening that can help relieve the suffering of the other person...during the process of deep listening, we can learn so much about our own perceptions and their perceptions.” This type of practice is about listening attentively and nonjudgmentally to what the other person is saying. Professor, Author and Psychologist Tobin Hart (2004) wrote an article entitled “Opening the Contemplative Mind in the Classroom” in which he discusses listening in classroom settings. He identifies three types of listening: passive, active and deep. Passive listening involves casual attention while active listening involves intentional focus and skills such as paraphrasing and summarizing. Deep listening is being attentive and open to the present moment experience in a nonjudgmental manner. It can lead to contemplation and reveal insight about our true thoughts and feelings. Hart (2004, p. 37) states that “contemplation involves a softer focus and lighter touch. The voice of the contemplative lives in these shadow symbols, feelings, and images as well as in paradoxes and passions.” Below is an excerpt from Hart’s article that helps illustrate deep listening as a classroom activity.

Take a few deep cleansing breaths, relax, and close your eyes if you feel comfortable doing so. Take a few moments in silence to just settle in. Now listen deeply to the reading [poem, story, idea, quote, famous speech, music, or sounds; we could just as easily have them focus on a picture of piece of art or nature or sit quietly in front of another student]. Gently open to and receive the words [picture, person, etc.] without needing to do anything to it or figure it out. Just meet these words gently, allowing them to wash over you like a warm breeze. Observe the images that arise in your mind, the feelings in your body, thoughts, emotions, meanings, sounds, tastes, movements, symbols, shapes, or anything else that arises. How does your body want to move? How does this resonate within you? What do you want to do as you listen deeply? What story can you tell about this? Sit silently for several moments and just notice without judgment (p. 36).

The aforementioned deep listening activity could be considered a guided meditation if read to students out loud. A common approach to meditation, especially for new meditators, is being guided through the practice by an in-person and audio-recorded facilitator as opposed

to self-directed practice. According to Thich Nhat Hanh (2009), guided meditations have been part of the Buddhist tradition right from the beginning. They are exercises that can make a sitting meditation more concrete and, because of their systematic nature, they can open new ways of practicing meditations, especially sitting meditations. When being guided through a meditation, we may catch our mind wandering off or lost in thought. The objective is to gently but firmly bring our attention back to the object of awareness. Sometimes we will notice our minds drifting off to think about desires—such as the desire to let the mind wander or stop meditating due to boredom.

Toni Bernhard (2013), acclaimed author of *How to Wake Up: A Buddhist-Inspired Guide to Navigating Joy and Sorrow* and former Law Professor, explains how one might skillfully and mindfully work with a desire while meditating. The technique is to recognize it, label it, investigate it and then let it be. When we are investigating a desire, we are examining how it operates in our lives. Maintaining a nonjudgmental attitude helps this process because we can coax the desire into the light of mindful awareness. We are investigating the desire with nonjudgmental curiosity in order to become objective observers. This mindful awareness and curiosity can help turn mundane activities into richly textured moments. Bernhard describes a richly textured moment of mindfulness in her book and expresses her experience this way: “The intentional engagement with what is happening in the present moment generated curiosity and wisdom, not boredom” (Bernhard, 2013, p. 81–82).

### *Benefits of mindfulness practice*

Mindfulness and attention have been areas of interest among various researchers working in the field of psychology. According to research conducted by Killingsworth and Gilbert (2010), of Harvard University, people spend about 47 percent of their waking hours thinking about something other than what they are doing and this mind wandering can lead to unhappiness. Therefore, it could be said that people spend almost half of their life feeling unhappy. Fortunately, attention can be practiced and improved through certain forms of mindfulness practice (Langer and Moldoveanu, 2000).

Langer writes about the many benefits of mindfulness that go beyond studies related to attention. One of these benefits is that practicing can lead to a greater sensitivity to context and perspective (Langer, 2000). Additional benefits may include: “... an increase in competence;

a decrease in accidents; an increase in memory, creativity, and positive affect; a decrease in stress; and an increase in health and longevity...” (Langer, 2000, p. 220). Other academic researchers, such as Ed Sarath, Professor at University of Michigan (U–M) and Director of U–M’s Creativity and Consciousness Studies program, also describe personal gains from practicing mindfulness (Sarath, 2006). According to Sarath, mindfulness can be a tool for cultivating mental clarity, insight, creativity, inner calm, well-being, compassion and a range of other personal and transpersonal qualities. The importance of exploring and researching mindfulness lies in its many benefits.

### *Studies of meditation and creativity*

Both Langer and Sarath emphasize the link between mindfulness and an increase in and cultivation of creativity. Research has investigated the connection between mindfulness meditation and creativity. A study conducted by Colzato et al. (2012) highlights the impact of focused-attention (FA) and open-monitoring (OM) meditations on creativity tasks tapping into convergent thinking (a process of generating one possible solution to a particular problem) and divergent thinking (a style of thinking, such as brainstorming, that allows many ideas to be generated). In FA meditation, the individual focuses on a particular item, thought, or object, whereas in OM meditation, the individual is open to perceive and observe any sensation or thought without focusing on a concept in the mind or a fixed item (Colzato et al., 2012). Results from the study indicated that FA meditation did not affect divergent thinking, but instead it improved convergent thinking. Also, participants excelled at divergent thinking tasks after OM meditation. An increase in divergent thinking is relevant to creativity because divergent thinking is a way of generating creative ideas.

The scientific evidence regarding the relationship between FA meditation and creativity, however, seems to be inconsistent. As previously mentioned, FA meditation was not associated with divergent thinking (typically associated with creative thinking). Another study suggests that sustained attention influences insight problem-solving in a positive manner (Ren et al., 2011). Insight problems tend to be “ill-defined” where there is some ambiguity about what the problem requires or what form the solution will take (Murray and Byrne, 2005). The study by Ren et al. (2011), entitled “Meditation Promotes Insightful Problem-Solving by

Keeping People in a Mindful and Alert Conscious State”, incorporated a breathing meditation, which is typically labeled as an FA meditation. Results showed that “participants who engaged in meditation solved more previously unsolved problems compared to participants in the control condition, thereby providing direct evidence for the role of meditation in promoting insight” (p. 964). In contrast, according to a study conducted by Murray and Byrne (2005), individuals who were better at switching attention, as opposed to sustaining attention, were also better at solving insight problems.

### *Further perspectives on mindfulness and creativity*

Langer (2005, p. 4) explains that “creativity is not a blessing some special few are born with or receive from above. Our creative nature is an integral part of our daily lives, expressed through our culture, our language, and even our most mundane activities.” Creativity can be cultivated in all areas of life. One way to cultivate creativity in our everyday lives is through a beginner’s mind perspective, which means to try to see things with a fresh perspective and with curiosity. In Zen practice it is said that “in the beginner’s mind there are many possibilities, in the expert’s mind there are few” (Suzuki, 1970, p.21). According to Kabat-Zinn (1990), taking on a beginner’s mindset means to cultivate an attitude of seeing things as if for the first time, as to be alive to unforeseen or previously unacknowledged possibilities in experience. The beginner’s mind has a sense of playfulness, lightness and receptivity (Stefik and Stefik, 2005). Interestingly, there are links between a beginner’s mindset and some of Piirto’s (2011) core attitudes that creative people possess (openness to experience, risk-taking, and tolerance for ambiguity). Also, there are links to Ayob et al.’s (2011) study and creativity traits including flexibility, openness, and ability to put ideas into context.

One way to exercise and experience a beginner’s mind is through eating meditation. A common eating meditation is known as the raisin meditation, which is actually the first meditation practiced by participants in Kabat-Zinn’s now famous mindfulness program. It involves being aware of one’s own experience of a specific object (Fodor and Hooker, 2008). Kabat-Zinn illustrates this type of meditation through the following explanation:

Bring your attention to the raisin, observing it carefully as if you had never seen one before. Pick up one raisin and feel its texture between your fingers and notice its colors. Be aware of any

thoughts you might be having about the raisin. Note any thoughts or feelings of liking or disliking raisins if they come up while you are looking at it. Then lift the raisin to your nose and smell it for a while and finally, with awareness, bring it to your lips, being aware of the arm moving the hand to position it correctly and of your mouth salivating as the mind and body anticipate eating. Take the raisin into your mouth and chew it slowly, experiencing the actual taste of the raisin. Hold it in your mouth. When you feel ready to swallow, watch the impulse to swallow as it comes up, so that even that is experienced consciously. When you are ready, pick up the second raisin and repeat this process, with a new raisin, as if it is now the first raisin you have ever seen (Kabat-Zinn, 1990, p. 27).

The concept of a beginner's mind relates closely with Langer's (2005, p.16) definition of mindfulness: "... [a] simple process that consists of drawing novel distinctions or noticing new things." It is about seeing the similarities in things thought to be different and the differences in things taken to be similar. And also, if one is instructed to vary the stimulus, that is, to mindfully notice new things about it, then attention improves (Langer and Moldoveanu, 2000). Thus, this perspective would be a way to combat mindlessness.

The goal of the mindful perspective is to increase cognitive flexibility and to thereby increase behavioral flexibility and the ability to adapt to one's current environment in a meaningful manner. Empirical evidence spanning four decades attests to the beneficial effects of a mindful vs. mindless perspective (Carson and Langer, 2006, p. 1).

According to Satinder Dhiman, Professor of Management with research interests related to Buddhist psychology in the workplace (Dhiman, n.d.), there is a relationship between mindfulness, creativity and flow. Flow refers to a state of total immersion, effortless concentration, and rapt enjoyment in an activity in which one loses any sense of space, time and self (Csikszentmihalyi, 1990).

Mindfulness, as a meditative practice, can help tremendously in raising the awareness level of the contents of the mind. By being mindfully aware of one's inner and outer worlds, one notices new

things, which in turn helps one to become more creative and alive. Thus, mindfulness can serve as a basis of creativity, flow, and meaningful engagement with life in its myriad manifestations (Dhiman, 2012, p. 32).

It should be mentioned that flow is not a mindless state even though one loses any sense of space and time. Mindlessness means we act like automatons (Langer, 2000). According to Kabat-Zinn (2005), sometimes “we fall into a robot like way of seeing and thinking and doing. In those moments, we break contact with what is deepest in ourselves and affords us perhaps our greatest opportunity for creativity, learning, and growing” (p. xiii). This suggests that we need to make an effort to practice mindfulness to cultivate creativity and optimize our learning potential.

### **1.33 MINDFULNESS PRACTICE IN EDUCATION**

#### *Integrating mindfulness into the classroom*

Rechtschaffen (2014), Founder of the Mindful Education Institute and author of the book entitled *The Way of Mindful Education: Cultivating Well-Being in Teachers and Students* (foreword by Kabat-Zinn), writes about the many benefits of mindfulness practice in educational contexts. In the introduction of his book he says that “the process of understanding what mindfulness is begins with firsthand experience” (p.3). Rechtschaffen explains the process of mindfulness, which he integrates into classroom settings, by guiding the reader through a simple mindfulness exercise, as follows:

Notice your eyes engaging with the letters of this text as you read. At the end of this paragraph, see if you can stop and focus on the letters simply as shapes for a minute, as if you were a baby in awe of the varied forms flowing through your eyes. Let your eyes and body relax and take in the text as a work of art, letting go of the need to assign meaning to the words.

After you finish reading this paragraph, pause for a moment and try listening to the sounds around you, smelling the smells, sensing the temperature and pulses in your body, without assigning any meaning to your experiences. No labeling the sound as the ‘heater,’ or identifying the smell as ‘pancakes.’ See if for a few minutes you can simply receive your sensory world like a beautiful symphony (Rechtschaffen, 2014, p. 3).

Deborah Schoeberlein (2009), a grade school teacher who has also been integrating mindfulness into her classrooms for over 15 years, describes an array of mindfulness activities that can be incorporated into the educational contexts. Some of these activities include mindful breathing, seeing, eating, walking, and journaling, as well as kindness reflection, drawing the mind, and noticing thoughts and feelings, among others (Schoeberlein, 2009). She defines mindfulness as a conscious, purposeful way of tuning in to what is happening in and around us and suggests that it “improves mental focus and academic performance” (p. 1). Studies have been conducted on the relationship between mindfulness and academic self-efficacy. Keye and Pidgeon (2013) conducted research indicating mindfulness and academic self-efficacy as significant predictors of resiliency. Thus, cultivating mindfulness, an aid for academic performance according to Schoeberlein, can also help students cope with change and uncertainty. Additional benefits of mindfulness in education for teachers and students are outlined in Schoeberlein’s (2009) book entitled *Mindful Teaching and Teaching Mindfulness: A Guide for Anyone who Teaches Anything*. The image below shows a chart from her book that represents some of these benefits:

BENEFITS OF MINDFULNESS	Benefits of mindfulness for teachers and students (Schoeberlein, 2009, p. 9)
<p><b>FOR TEACHERS:</b></p> <ul style="list-style-type: none"> <li>• Improves focus and awareness.</li> <li>• Increases responsiveness to students’ needs.</li> <li>• Promotes emotional balance.</li> <li>• Supports stress management and stress reduction.</li> <li>• Supports healthy relationships at work and home.</li> <li>• Enhances classroom climate.</li> <li>• Supports overall well-being.</li> </ul> <p><b>FOR STUDENTS:</b></p> <ul style="list-style-type: none"> <li>• Supports “readiness to learn.”</li> <li>• Promotes academic performance.</li> <li>• Strengthens attention and concentration.</li> <li>• Reduces anxiety before testing.</li> <li>• Promotes self-reflection and self-calming.</li> <li>• Improves classroom participation by supporting impulse control.</li> <li>• Provides tools to reduce stress.</li> <li>• Enhances social and emotional learning.</li> <li>• Fosters pro-social behaviors and healthy relationships.</li> <li>• Supports holistic well-being.</li> </ul>	



Even though Schoeberlein does not include improved creativity as a benefit of mindfulness practice explicitly, in the chart, she does describe their connection throughout her book. She writes about the importance of what she calls *mindfulness boosters*, or mini mindfulness breaks, where pausing spontaneously to breathe and rest helps create space to cue attention. “Sometimes, one or more mindful breaths provide the mental energy and space for your mind to find a solution” (p. 90). Also, by switching a student’s attention from its current focus onto something else—such as the breath, ambient sounds in the room, or a peaceful picture—a teacher can help a student reestablish his or her attention. “Mindfulness boosters re-energize personal creativity and refine attention, rather than interrupt them” (p. 91).

Schoeberlein’s mindfulness booster exercise resembles Baillie’s mind and body approach mentioned previously. This is interesting in that Baillie does not mention mindfulness in her chapter directly, but alludes to many mindfulness-related traits while discussing ideation. Baillie uses the word ‘centred’ to describe the mind and body approach, which parallels a mindfulness-related term: present-centred. Present-centred mindfulness means that we can become more aware of what is happening in the present moment by practicing mindfulness (Dreyfus, 2011). According to Richard Burnett, Co-founder and Creative Director of the Mindfulness in Schools Project, present-moment awareness can lead to a sense of calmness which provides a stable environment for insight. This is because as we practice mindfulness and experience calmness, we begin to untangle the “knots in our mind” (Burnett, 2011).

Burnett explains how mindfulness can help untangle the knots in our mind through a presentation entitled *Mindfulness in Schools* that he delivered at a TEDx Talk (Burnett, 2013). He emphasizes the importance of appropriately balancing sensing and thinking modes of being. He explains that an objective of mindfulness is to teach our mind to spend more time slowing down and experiencing “sensing mode”. By sensing, he is referring to an attention that is directed to the present moment reality accomplished by attending to our physical bodily sensations. However, this can be difficult to do because we spend a lot of our time in thinking mode. Even though thinking mode is an important survival tool, when our thinking mode goes into overdrive we tend to ruminate, dwell and

create mental knots (Burnett, 2013). Placing our attention on rumination can make it difficult to untangle these mental knots. Burnett explains why attention is important, especially within classroom settings. He says:

We need to teach young people to best use the lens through which all of their experience is being filtered. And that is the faculty of their attention.

What a lot of research is telling us at the moment, and what I know from my own experience and from the kids that I have taught, is that our mental health and happiness are profoundly shaped by what we do with our attention (Burnett, 2013).

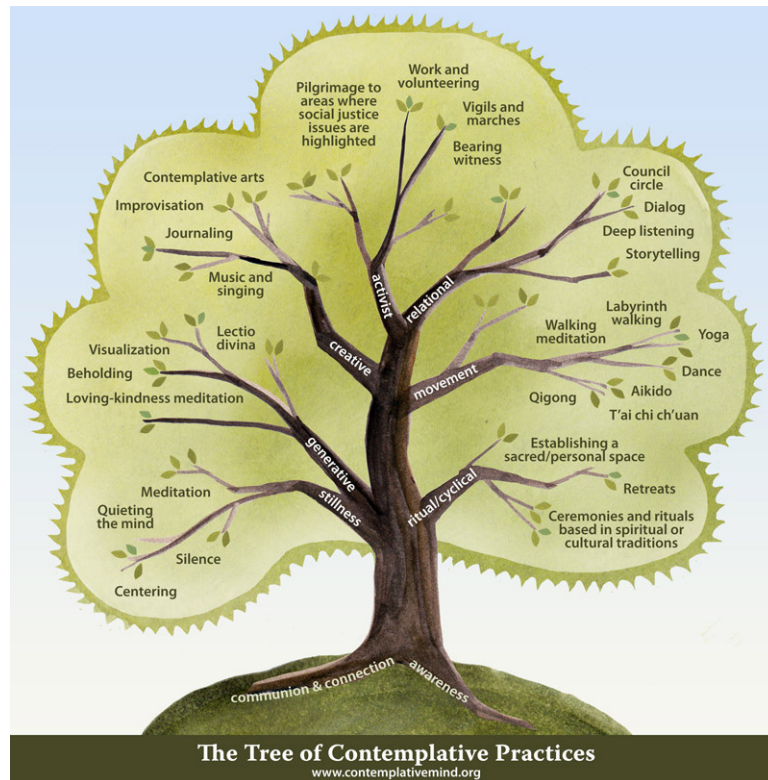
Barbezat and Bush (2014), authors of the book entitled *Contemplative Practices in Higher Education: Powerful Methods to Transform Teaching and Learning*, also discuss the importance of mindfulness in the classroom; though, unfortunately “...higher education today often neglects the crucial role of reflection where the tempo of intelligence slows and the lines of a poem or the colours of a painting evoke feelings and perceptions inaccessible to rapid analysis alone” (p. 205). They suggest that contemplative practices, such as mindfulness practice, are vital forms of experiential learning where we are able to take a moment of pause so that the class drops into silence in order to take a break from paying attention, sense what is going on in the present moment, and then redirect it.

### *Preparing a class for contemplative practices*

There are some teachers in higher education who are skeptical and critical about the integration of mindfulness into the classroom because, as Barbezat and Bush (2014, p. 67) suggest: “Academics are an especially careful group...[they] are deeply skeptical of most change and are trained to analyze carefully even the smallest alterations.” Barbezat and Bush discuss how to overcome challenges that arise when weaving contemplative practices into the classroom.

Contemplative practice within an educational context is sometimes referred to as contemplative pedagogy. According to Barbezat and Bush (2014), contemplative pedagogy uses forms of introspection and reflection that allow students to focus internally and “find more of themselves” in their courses. To some, mindfulness meditation is thought

to fit under the umbrella term of “contemplative practice”. The image below shows a diagram from The Center for Contemplative Mind in Society (2000–2015) that illustrates common contemplative practices. Many of the practices could be labeled as mindfulness practices.



In making suggestions about preparing a class for contemplative practice to teachers in higher education, Barbezat and Bush state that in order to teach mindfulness, or any contemplative practice, one has to have a practice of one's own. "Without the experience of the instability of attention when learning the practice, it will be difficult to guide a student's personal discovery" (Barbezat and Bush, 2014, p. 68). Another suggestion is that teachers should pay attention to the context in which the practices arise and ensure that they are appropriately incorporated into the classroom. Teachers should also allow students to have the freedom to maintain their own beliefs and not require them to believe anything specific in order to engage in the exercises. Barbezat and Bush (2014) also mention that teachers should be aware of the different backgrounds of the students, so that practices can be introduced in the most open and accessible manner possible.

## 2. Research Approach

### 2.1 Research Statement

I am exploring mindfulness practice as an ideation technique to be used by design educators in order to discover whether this practice can influence a students' creative abilities in a positive manner to help them create stronger design outcomes and how the practice of mindfulness might be integrated into design studies curriculum/ instruction as a framework. I also aim to discover the extent to which mindfulness practice is already being incorporated into design education by instructors.

## 2.2 Research Methods

It was important to take an exploratory approach with this research project because the aim was to explore and discover new connections between different topics including ideation, creativity, mindfulness practice, mindfulness in education, design and design education. The connections between these specific topics appear not to have been explored in previous research studies. According to Robert Stebbins (2001, p. v), Professor of Sociology at the University of Calgary and author of *Exploratory Research in the Social Sciences*, exploration “...is arguably a more inviting and indeed accurate way of representing social research than treating it as a narrowing, quasi rule-bound and discipline-based process that settles and confirms rather than unsettles and questions what one knows.” Exploration as research is less structured than other research approaches and typically useful for preliminary assessments of problems, situations, topics and issues (Shields and Rangarajan, 2013). When doing exploratory research, the researcher has the freedom to “cast their nets” as they search for working hypotheses. “Although it is the least structured [approach], exploratory research lends itself to complex and profound examinations of issues and often produces recommendations for future empirical investigations” (Shields and Rangarajan, 2013, p. 197).

The specific exploration-based research methods chosen included semi-structured interviews and an exploratory workshop. These methods allowed me to create many connections with the aim of generating rich insights. I conducted semi-structured interviews with three different types of participants including mindfulness practitioners, design educators, and an education specialist. Interviewees were recruited by email (appendices 119–121). The information collected during the interviews was used to create connections and develop a visual framework related to mindfulness. The exploratory study, in the form of a workshop, was chosen as a way of gathering information about students’ perception of mindfulness after engaging in four different mindfulness-related activities. To that end, the participants, who were recruited via a poster advertisement and in-class announcements, completed a questionnaire at the end of the workshop.

### 2.2.1 SEMI-STRUCTURED INTERVIEWS

Interviews with mindfulness practitioners, design educators and an educational specialist were one-on-one and most of them were

face-to-face (all but one because of scheduling issues). Interviewing different mindfulness practitioners gave me an opportunity to ask them about their specific areas of interest and work experiences as a way to uncover knowledge. I prepared 4–5 questions for each type of interview and through our discussions I asked additional, relevant questions. The face-to-face aspect of the interviews was chosen intentionally in that I was able to pick up on nuances from the participants' responses and prompt them to elaborate—with an aim to create rich, meaningful conversations. The interviews lasted between 15-minutes to 45-minutes depending on how elaborate the conversations were. The interviews took place at the participants' own offices on campus or my campus office, according to their preference. Data was collected through audio recording and notes written on my laptop. The interview that was not done in person was conducted via email.

Conducting in-person interviews with professionals allowed me to glean information about the expert interviewees' thoughts and feelings: information that could not be communicated fully by reading research literature. The interviews also enabled me to create connections with the exploratory study findings and generate new insights about the research topics. Using in a semi-structured format was useful because it allowed for flexibility. According to Gill, Stewart, Treasure and Chadwick (2008), authors of the article "Methods of Data Collection in Qualitative Research: Interviews and Focus Groups", semi-structured interviews allow for flexibility and the discovery or elaboration of information that is important to participants, that may not have previously been thought of as pertinent by the researcher.

Interviewing mindfulness practitioners allowed me to survey different topics related to mindfulness and ask questions such as: What is mindfulness practice? How it can be done? And why it is important, particularly in educational contexts?

Interviewing design educators gave me an opportunity to audit which ideation techniques were already being implemented in design classrooms and it also allowed me to identify—in connection with the feedback that I collected from the mindfulness practitioner interviewees—if mindfulness practice is already being incorporated into the classroom.

Interviewing an education specialist—a professional with comprehensive knowledge about pedagogical theory and practice—was intended to gather insight about teaching and learning as it relates to ideation and also to ask about the prevalence of mindfulness practice in higher educational settings.

I interviewed 5 mindfulness practitioners, 4 design educators and 1 educational specialist. Originally, I was hoping to interview more participants (9 mindfulness practitioners, 5 design educators and 3 educational specialists); however, this changed for a few reasons. After interviewing 5 mindfulness practitioners it became apparent to me that I was not receiving new findings and that I had gained general information about mindfulness. This was also why I did not conduct all 5 interviews with design educators; I felt that I had gained a broad enough overview of information about ideation techniques in design classrooms to form connections. With regard to the educational specialists, I sent out an initial and a follow-up email to all the educational developers at the U of A and I received only two replies. One reply indicated that they did not feel that their area of expertise was related to my research topic and the other reply indicated that they were willing to meet for an interview. After conducting the one interview with the educational specialist, I had collected enough information from my secondary research, interviews and exploratory study to enable me to create connections and uncover any insights about the research topics outlined.

### *Interviewees*

I interviewed a diverse mixture of local mindfulness practitioners to gain well-rounded perspectives related to mindfulness. Participant's professional roles included: researcher, professor, academic chair, psychiatrist, psychotherapist, certified yoga instructor and former school teacher. I have worked, personally and/or professionally, with each practitioner, primarily through my role as the President of the U of A's Mindfulness Mediation Student Group. Three of the 5 mindfulness practitioners who were interviewed chose to be acknowledged for their contribution to this thesis project (appendices 163–165). All of the design educators chose to be acknowledged (appendices 166–169). Biographical information was collected through conversations in the interviews. Below are biographies of the participants who chose to be acknowledged.

### *Mindfulness practitioners*

#### **Michelle Johnston**

Michelle Johnston was first introduced to mindfulness meditation through a Certified Yoga Teacher training program. Since then, she has participated in many mindfulness retreats including one led by Jon Kabat-Zinn. Johnston was a junior high school teacher for over a decade and in 2009, she had an opportunity to bring mindfulness into the school system through her involvement in the school's Peace Club and Contemplative Art-Making classes. Currently, she is completing a Master's degree at the U of A which investigates teacher's experiences with mindfulness. She is also working as a Freelance Mindfulness Practitioner and the Education Coordinator for the Mahatma Gandhi Canadian Foundation for World Peace.

#### **Catherine Phillips**

Catherine Phillips is a Psychiatrist and Psychotherapist with over 30 years of meditation practice. She was introduced to meditation formally in 1982, which sparked an interest in the relationship between western psychoanalysis and mindfulness meditation. She has spent the last ten years exploring Mindfulness-Based Stress Reduction (MBSR) and is a certified MBSR teacher through the Centre of Mindfulness, University of Massachusetts Medical School. Phillips is also the Founding Director of The Mindfulness Institute.ca and an Assistant Clinical Professor through the Department of Psychiatry at the U of A.

#### **Norbert Krumins**

Norbert is the Chair of Theological Studies at St. Stephen's College where he teaches mindfulness-related courses. Last year, he designed and delivered a course called Mindfulness for Teachers to students. Currently, he is pursuing a doctoral degree in which he researches different perspectives related to contemplative pedagogy. As part of his personal practice, Krumins has more than 25 years experience with meditation, which primarily includes sitting and walking meditations.

### *Design educators*

#### **Judy Armstrong**

Judy Armstrong began her design journey as a Fashion Designer creating wedding dresses for her freelance business. She taught fashion design



studies at Olds College which inspired her further her education and in turn, she pursued the Master of Design program at the U of A. Since then, she has expanded her freelance design business to include graphic design services and has been a design studies instructor at the U of A for over 8 years. Armstrong has taught classes related to visual communication design, garment construction, home economics, design principles and design history.

#### **Layal Shuman**

Layal Shuman holds a Bachelor's degree in Graphic Design from the Lebanese American University and a Master's degree in Visual Communication Design from the U of A. She has professional experience as an Art Director and worked in the field of advertising and branding. During the last 3 years, Shuman has been involved in design education through teaching and her graduate thesis research which investigated community-based projects in design education. She has also facilitated design-based learning workshops for non-professional designers within various community organizations and groups.

#### **Gillian Harvey**

Gillian Harvey holds a Bachelor's degree in Visual Communication Design from the U of A and a Master's degree in Information Design from the University of Reading, U.K. She has over 15 years of professional design experience in roles such as Exhibition Designer, Senior Graphic Designer and Associate Art Director. Since 2004, Harvey has taught courses related to visual communication design at the U of A and presented at various design education-related conferences. Harvey has also taught design studies at Grant MacEwan University.

#### **Andrea Van Der Ree**

Andrea Van Der Ree holds a Bachelor's degree in Graphic Design from the Universidad del Zulia in Venezuela and a Master's degree in Visual Communication Design from the U of A. During and after completing her masters, she worked as an instructor at the U of A teaching courses in Design Fundamentals and Visual Communication Design. While teaching, she has continued her design practice as a professional graphic designer at a local design firm.

## 2.22 EXPLORATORY WORKSHOP

The workshop took place in a visual communication design (VCD) classroom with design students as participants. Initially, I hypothesized that I would recruit 15 design students who would have taken at least one visual communication and/or industrial design course. My hope was to recruit about 15 students because this would reflect a typical design classroom class size (according to my previous experience as an undergraduate design student at the U of A). After recruitment efforts via poster advertisement and a few in-class announcements in the visual communication design and industrial design studio areas, I recruited 8 participants after three attempts at recruiting. This meant that there were three separate workshops delivered, which was not the initial aim, but instead the outcome of the circumstance of not being able to recruit enough participants all at once. Each workshop had at least two participants and myself. I did not have any teaching responsibilities during the Winter 2015 term, the term in which I conducted the research, so there was no risk of a relationship which could influence students' decisions to participate in the research.

As the researcher-facilitator, I led four mindfulness activities over a one-hour period. I supplied all the materials needed for the workshop (e.g. paper, markers, glue sticks and magazines) and chose to lead four kinds of meditation activities as a way to explore different practices that could be incorporated into the classroom. The first two activities—a breathing meditation and blind-contour drawing meditation—focused on relaxation, present-moment awareness and concentration. The second two activities—collaging meditation and free-drawing meditation—focused on creation. The aim was to get participants to experience a sense of mindfulness gradually by doing a variety of activities that started with relaxation, to calm the mind and then transitioned into creation. Variation in activity is an important aspect to sustaining attention. As previously mentioned by Langer and Moldoveanu (2000), people who are instructed to vary the stimulus and notice new things can improve their attention.

Below is a list of the workshop activities and the approximate time given to complete each one:

Sitting meditation = 10 minutes

Blind-contour drawing meditation = 10 minutes

Aesthetic/collaging meditation = 15 minutes

Free-drawing meditation = 10 minutes

I chose the times for each activity based on my personal experience and experience as the MMSG Past-President. Many beginner guided meditations, such as the *Headspace* sitting meditation described below, appear to be about 10–15 minutes long.

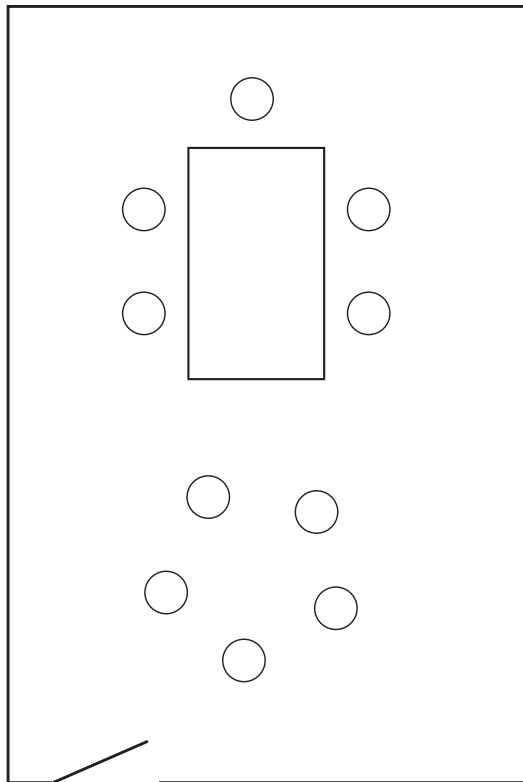
Before the activities took place, I introduced participants to the subject of mindfulness by providing them with a definition devised by Jon Kabat-Zinn (see page 19). The purpose of defining mindfulness at the beginning of the workshop was to contextualize the activities. This would mirror a real world application of mindfulness instruction in educational settings.

The first activity was a 10-minute breathing meditation, also known as a sitting meditation. It was guided using a popular mindfulness app called *Headspace* that was played using a laptop and speakers. I decided to use the *Headspace* app because it is a professional, widely-known resource for meditation that is guided by former Buddhist monk Andy Puddicombe (Pickert, 2014). Puddicombe is an accomplished writer and presenter with appearances on BBC, Netflix and TEDtalk. Even though he currently shares his knowledge and experience of mindfulness through secular and popular culture means, Puddicombe's mindfulness journey began at as a young adult when he spent ten years traveling around the world, culminating with his ordination as a Tibetan Buddhist monk in Northern India (Puddicombe, 2015).

The participants sat in chairs arranged in a small circle. I used this setup because it is how I was taught to lead a group meditation by the former Mindfulness Meditation Student Group President and this arrangement seems to be a more intimate way to interact in a group setting in comparison with sitting in a conventional classroom setup (chairs in rows). It was important to create an intimate setting because the practice of meditation can be quite personal as one explores their thoughts, feelings and sensations. I also wanted participants to feel comfortable meditating “alone together” especially since many of them may not have meditated before. The breathing meditation included “focused attention” and “open-monitoring”. Specifically, participants were guided to focus on the sensations of their breathing and body as well as sounds in the environment. The idea behind including the formal breathing

meditation at the beginning of the workshop was that the participants would relax their minds to help them become more focused and aware of their present-moment experiences. I tried to make the participants feel comfortable by taking part in all the mindfulness activities—as opposed to just observing them engage in the activities.

After the breathing meditation, I asked the group how the experience was and how they felt in that moment in comparison with how they felt before the meditation. I typically incorporate this type of reflection after leading group breathing meditations because it is an effective way to bring the individuals' awareness back to the group setting. Participants were then invited to take a seat in a chair at a group of tables. Below is an image of the room setup (chairs as circles and the table as a rectangle):



**Exploratory workshop  
classroom setup**  
Visual Communication  
Design studio, Fine Arts  
Building, U of A

At this time, I turned on a soundscape of soft, gentle bells ringing as a way of maintaining a setting of relaxation. I kept this playing for the duration of the workshop to help participants continue to feel relaxed with an

aim of quieting the “mental noise” or “mind chatter”. Awareness and concentration are easier to exercise if the mind is not filled with too many thoughts.

I informed participants that they were going to continue with the activities by working “alone together”. Working alone together was a phrase that was first introduced to me during the Mindfulness for Teachers academic course that I took. Working alone together might have allowed individuals to feel a sense of connectedness with one another while practicing mindfulness. Once participants were sitting at the table comfortably, they were instructed to complete the next mindfulness activity: a blind-contour drawing meditation.

Blind contour drawing involves the drawing while looking at the object and not the surface upon which we are drawing or the evolving image (Ching and Juroszek, 2013). Ching and Juroszek, authors of the book *Design Drawing*, explained how this is done:

Turn your body away from the paper and concentrate all of your attention on the subject. Your eyes would remain on the subject as the hand attempts to record on paper what you see (location 573 or 7833).

Drawing, as a mindfulness practice, has been researched. Grant, Langer, Falk and Capodilupo (2004) conducted a study entitled “Mindful Creativity: Drawing to Draw Distinctions”. One of their findings indicated that drawing is a means of increasing mindfulness. They also discovered that when people are hesitant to engage their “mindful creativity”, the instruction to draw distinctions is sufficient to initiate the mindful process. Furthermore, I gave participants instructions to notice as many details of the object-in-focus (their non-dominant hand) in order to draw distinctions between visual elements. They were given approximately 10 minutes to do the activity. The drawings acted as visual representations of mindfulness practice (appendices 196–203). After the activity was completed, I asked participants to take a minute to sit and be aware of their breathing. This gave them an opportunity to relax and provided a transition from one activity to the next.

The next activity is what Norbert Krumins, instructor of the Mindfulness for Teachers course at St. Stephen’s College, calls an “aesthetic meditation”. Krumins, who was interviewed as a mindfulness-practitioner

for this research project, describes an aesthetic meditation as a practice that uses aesthetic means, whether it is clay, paint, collage, movement, dance, puppetry or other means. This practice is not about focusing on the product being created, but rather, it is about focusing on and trusting in the process of creation. Krumins states that an aesthetic meditation is:

...similar to a guided meditation where you, [as the facilitator], are guiding students through a process that will hopefully spark their imagination...and hopefully it will help them to engage their non-rational mind and to listen to their intuitive voice.

The aesthetic meditation that I led as part of the exploratory workshop used collaging as the aesthetic means. Krumins, who modified this collage activity from one his expressive art therapy teacher, introduced me to this specific meditation during the Mindfulness for Teachers course.

To start, 20–25 *National Geographic* magazines were placed on the table and participants were asked to take a minute to choose a few magazines that seemed appealing to them based on their covers. *National Geographic* magazines were chosen for this activity because they are full of rich, dynamic imagery. Also, they focus on global perspectives and cover a wide variety of issues and topics. This may have aided participants in choosing meaningful images. Participants were prompted with three different statements, one at a time, to guide them in the creation process.

*First prompt:*

Choose an image that captures an aspect of your inner being

*Second prompt:*

Choose an image that captures the opposite

*Third prompt:*

Choose a word that connects the two images together

Participants were given 4–5 minutes to search for each image and the connecting word. They were asked to make decisions based on intuition, or a “gut feeling”, rather than the rational mind. After the images and word were torn out of the magazines, they were given a few minutes to assemble a layout and paste them onto a piece of paper to create

a collage (appendices 204–211). After the aesthetic meditation was complete, participants spent minute sitting and breathing before taking part in the fourth and final activity: a free-drawing meditation.

Free-drawing could be thought as a process of creating rough drawings that come from a stream of consciousness or from intuition (as opposed to the rational mind). Ching and Juroszek (2013) state that

in the search for possibilities and to outline choices, we reply on intuition as a guide. Intuition, however, is based on informed experience. We cannot draw out what is not already within each one of us. Drawing requires understanding of what it is we are drawing...We must trust our intuition if we are to move forward in the drawing process (location 4306 or 7833).

Participants were asked to spend 10 minutes free-drawing rough sketches for a personal visual identity design. In order to guide them, as well as clarify what was meant by a visual identity, I suggested that they draw a symbol, logotype, and/or word mark using their name or initials. The objective of the free-drawing activity was that after being exposed to different mindfulness activities that focused on relaxation, present-moment awareness, concentration, and intuitive sensing, participants would feel a sense of mental clarity and spaciousness that might aid them in generating ideas more freely.

Asking participants to create rough designs for a personal visual identity was done purposefully. Many designers are required to have a personal visual identity as a way to branding themselves. Design educators understand the importance of visual identities as well and many of the projects they create for their students, especially within visual communication design courses, require design students to develop a visual identity for their coursework portfolios. Therefore, it seemed relevant to ask the participants to draw visual identities. As the 10-minute mark neared, I let the participants finish up and gave them a minute to observe and reflect on their explorations.

### *Questionnaire*

See appendices 220–244.

After the participants completed all four mindfulness activities, they were asked to fill out a questionnaire in order to document their reflections as a form of summative or conclusive research which is used to frame or

decipher the outcome of an investigation (O'Grady and O'Grady, 2009). The questionnaire was used to collect factual information or quantitative data (through closed questions and Likert scales) and opinions or qualitative data (through open-ended questions and declarative probes). The intention was that collecting quantitative and qualitative data would add layers of depth and richness to the findings and lead to new insights. The emphasis was not on collecting quantitative data, but instead on gathering participants' reflections. The open-ended questions were important because they gave participants an opportunity to share whatever experiences they had had.

The questionnaire included questions about the number of years a participant had been in college and/or university and the number of design courses they have taken and the type of design courses they had taken (either VCD, ID or both). They were included in order to survey what type of design students were participating in the workshop and how much design education experience they had. I then asked participants to rate their mental clarity after the meditation activities in comparison with right before them. They were to circle one of the following answers: *greater now, about the same, lesser now, or I do not know*. Some mindfulness researchers and practitioners had suggested that mindfulness helps create a sense of calmness which may provide a stable environment for insight. Therefore, asking this question within a design education context would either reinforce this claim or not.

Then, using a 5-point Likert scale, I ask participants to indicate the degree to which the ideation visual exploration was easy. Asking this question would suggest whether the process of doing various mindfulness activities aided the process of creating visual explorations. I prompted them to leave additional comments by writing: *Use the space below the scale to explain or expand on your answer*. The space for additional comments was incorporated after all the Likert scales in the questionnaire.

The following questions, that were separated with a space for comments as opposed to being grouped together, were included: *Did you have any creative insights, or specific moments that you felt creative, during the study? If applicable, what factors might have led to these creative insights? If so, at what points in the study did this take place?* It was important to ask participants these questions because their comments



might uncover whether mindfulness, or mindfulness–related attitudes, generated or unlocked creative ideas. Asking them to elaborate on the point at which creative ideas emerged during the workshop could reveal whether a specific mindfulness-related activity influenced their insights.

Next, I thought that it would be useful to know if participants were satisfied with their visual explorations because I did not want to make any assumption that having creative insights equates to satisfying outcomes. Using a Likert scale and space for further explanation, I asked: *How satisfied are you with your visual explorations?*

It was also important to know whether participants felt that the activities were effective for the process of ideation. As previously mentioned, creativity encompasses certain elements and one of these elements is effectiveness (Cropley, 2001). Effectiveness, in relation to creativity, is creating something that works in the sense that it achieves some end purpose. Using a Likert scale and space for explanation, I asked participants: *How effective do you think the activities were at helping you generate ideas?*

At the end of the questionnaire, I wrote: *Please leave any additional comments that you might have about the study in the space below.* This gave participants an opportunity to add additional reflections that they may have had about the activities, visual explorations or mindfulness.

### 3. Findings: Identifying Themes

#### 3.1 Identifying Themes: Semi-Structured Interviews

Interviewing mindfulness practitioners, design educators and an education specialist resulted in an abundance of qualitative findings about mindfulness practice, ideation techniques and creative blocks. See appendices 140–154 to read them in full detail.

This section includes a summary of themes that emerged from interview responses. Because of the volume of responses collected and themes discovered, and due to the limited scope of this thesis project, I have examined only key themes that emerged in the interviews. One objective in examining key themes (responses that came up often) from the mindfulness practitioner interviews, and responses from the education specialist, was to create a visual framework that could be used as a tool for understanding mindfulness practice in design education and its related concepts.

There are two main sections below: Mindfulness Practice-Related Themes and Ideation and Creativity-Related Themes. Mindfulness practitioner responses are shown in the Mindfulness Practice-Related Themes section, design educator responses are shown in the Ideation and Creativity-Related Themes section and the education specialist responses are organized in both of these sections. The education specialist responses were split into both sections because the interview questions were about mindfulness and ideation. Under each section are titles that represent interview questions. This is followed by subtitles that represent responses mentioned and themes discovered from the findings. Certain themes then examined depending on the degree of relevance of it to the research topic.

##### 3.1.1 MINDFULNESS PRACTICE-RELATED THEMES

*What is mindfulness?*

**Mindfulness practice involves slowing down and easing into the moment**

Some interviewees emphasized the idea that mindfulness practice helps us slow down in order to take in what is happening in the present moment. According to Krumins, *“mindfulness practice is about slowing*

*down, calming the mind, and being present with your own thoughts, body and surroundings.*" This description of mindfulness mirrors Co-Founder and Creative Director Burnett's (2009) explanation of present-moment awareness. Burnett builds on Krumin's response by suggesting that slowing down can lead to insight. This is because as we practice mindfulness and experience calmness, we begin to untangle "knots in the mind". Other researchers make similar claims. According to Professor Sarath (2006), mindfulness can be a tool for cultivating mental clarity and inner calm as well as insight and creativity.

Johnston states that *"mindfulness practice is about paying attention to the present moment; easing and relaxing into what is now. It is also about getting out of your own way in terms of over-thinking and worrying."* Authors Barbekzat and Bush (2014) suggest that this easing and relaxing into what is "now" is important in educational contexts, but unfortunately, higher education today often neglects the crucial role of slowing down and taking the appropriate time to reflect on what is being engaged in and learned.

#### **Mindfulness practice enhances certain attitudes such as non-judgment, acceptance, patience, compassion and beginner's mind**

Catherine Phillips states that *"we practice mindfulness with life enhancing attitudes rather than attitudes that are not constructive. These attitudes may include non-judgment, acceptance, patience, compassion and a beginner's mind."* The term beginner's mind is emphasized in the research literature by Kabat-Zinn who suggests that taking on a beginner's mindset is about seeing things as if for the first time, so as to be alive to unforeseen or previously unacknowledged possibilities in experience (Kabat-Zinn, 1990).

It is possible that attitudes such as acceptance and patience help one cultivate other attitudes such as beginner's mind, as well as a state of being creative. In the research literature on creativity, we see that having an openness to experiences and tolerance for ambiguity links to core attitudes associated with creative individuals (Piiro, 2011). This openness and acceptance to experience can be understood as a core aspect of mindfulness. Professor Claxton (2005) suggests that mindfulness strengthening one's courage and skill to look; to look into experiences, even ones that prove to be uncomfortable, rather than looking away from them. This type of looking, or investigation into an experience, could help individuals cultivate an attitude of beginner's mind.

Phillips mentions non-judgment as being an attitude associated with mindfulness, which mirrors Kabat-Zinn's definitions of mindfulness. Kabat-Zinn proposes that mindfulness is an awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally, to the unfolding of experience moment by moment. Nonjudgmental awareness means that instead of constantly being critical of our inner and outer worlds, we should let go of such mechanical reactions and just be with, and open to, an experience (Kabat-Zinn, 1990).

### **Mindfulness practice requires effort and is not necessarily easy**

Phillips discussed the amount of effort it takes to become good at something in the interview. She states: *"Malcolm Gladwell writes about it taking 10,000 thousand hours to get really good at something... For example, you cannot sit down and just play a piano concerto without practice the same way you cant be a basketball star without practice, even if you have enormous potential. Mindfulness is fascinating to understand and there is a lot of research [supporting it] but without the practice you do not get the benefits."* When we are not putting an effort to be mindful, we may fall into a robot like way of seeing, thinking and doing (Kabat-Zinn, 2005). Professor Kabat-Zinn suggests that in these robotic-like moments "we break contact with what is deepest in ourselves and affords us perhaps our greatest opportunity for creativity, learning, and growing" (p. xiii). Thus, taking time to practice mindfulness could help foster creativity.

### *How is mindfulness practiced?*

### **An instructor should have his/her own practice if they are going to integrate it into their classroom**

Many of the mindfulness practitioners interviewed emphasized the importance of instructors having a personal mindfulness practice if they choose to integrate it into their classroom. One interviewee states: *"Most beneficial circumstance [with regard to the success of mindfulness in the classroom] is for teachers to have their own practice. Students will pick up on if their teacher is actually mindful or if they are just going through the motions"*. Phillips echoes this idea by stating that the most important aspect of integrating mindfulness in the classroom *"...is embodying mindfulness oneself [as an instructor]...actions speaks louder than words"*. According to Krumins, mindfulness should be incorporated into the classroom with purpose and reflectivity. Krumins states that instructors should ask themselves *"...what do I bring to the classroom?"*

*and 'how do I bring my own mindfulness and my own way of being to the classroom?' If you were doing that with integrity, you are modeling behaviour."*

We see this theme emerge in the literature review on contemplative pedagogy. According to Barbezat and Bush (2014), in order to teach mindfulness, or any contemplative practice, one has to have a practice of one's own because *"...without the experience of the instability of attention when learning the practice, it will be difficult to guide a student's personal discovery"* (p. 68).

### **Additional themes**

The following themes also emerged from the interviews, but they will not be examined in detail due to the limited scope of this project. It is possible that there are connections between these themes and creativity; however, interviewee responses did not show any specific or direct connections. See appendices 141–142 for participants' responses in detail.

- » Mindfulness can be practiced anywhere during the day at any time
- » Mindfulness practice involves formal and informal practices
- » Common meditations including sitting, walking and body scanning

*How might mindfulness practice be incorporated into a classroom setting?*

### **Mindfulness can be connected to what the students are learning**

Johnson connects mindfulness to student learning in her classroom. She states: *"I formally introduced mindfulness to students in 2011 in a leadership class and I felt like it was a good fit. It might be useful to incorporate it in a way that connects to something that the students are learning."* Johnston builds on this by saying that she has linked mindfulness to a value and in her classroom (such as social emotional learning). She says that *"this is a way for it to be sustainable and answers the 'why are we doing this'."* This concept could be transfer to a design education context because certain types of designers should possess certain values when creating communication pieces. For example, in my opinion, communication designers should possess the value of social responsibility in that they are creating and presenting messages that may influence the general public. Therefore, designers should be mindful of how their messages have an impact on others in order to not perpetuate negative views such as stereotypes.

### **Additional themes**

The following themes were also derived from the interviews, but they will not be examined due to the limited scope of this project. It is possible that there are connections between them and creativity; however, interviewee responses did not show any specific or direct connections. The themes do show how mindfulness can be incorporated in a classroom setting (not specific to design education). See appendices 142–143 for participants' responses in detail.

- » Mindfulness can be incorporated into the classroom by taking a few minutes to practice as a class
- » Mindfulness can be incorporated in the classroom by inviting the students to notice their breath and/or body sensations

*Why might mindfulness be important within the classroom?*

### **Mindfulness is important in the classroom because it helps students exercise the skill of attention**

One mindfulness practitioner stated that *“people are very distracted [now] and there is a lot of stimulation—more than ever in human history. There is a lot of evidence about the importance of focus and attention connected to mindfulness.”* He builds on this idea that attention is connected to mindfulness, specifically within an educational context, by stating: *“Learning will be enhanced if people are more present, focused, and attentive. Mindfulness can help to produce that.”*

Much of the mindfulness-related research literature emphasizes mindfulness practice as a way of exercising the skill of attention. According to Psychology Lecturers Moore and Malinowski (2009), the practice of mindfulness improves attention by aiding one's ability to sustain attention, as well as the ability to reduce proneness to distraction. One of the most notable articles on mindfulness and attention, wrote by Professors Killingsworth and Gilbert (2010), emphasizes the importance of attention as it relates to happiness. They suggest that people spend about half of their waking hours lost in thought and thinking about something other than what they are doing—and this mind wandering can lead to unhappiness. Burnett (2013) reinforces the importance this idea. Attention, according to Burnett, profoundly shapes our mental health and happiness. Fortunately, attention can be practiced and improved through

certain forms of mindfulness practice (Langer and Moldoveanu, 2000). Langer and Moldoveanu also suggest that much of the research already conducted shows the powerful effect of mindfulness manipulations on creativity, attention and learning.

### **Additional themes**

The following themes also emerged from the interviews, but they will not be examined in detail due to the limited scope of this project.

It is possible that there are connections between these themes and creativity; however, interview responses did not show any specific or direct connections.

Johnson reported that mindfulness helps build community, which could be useful in a design studio classroom where class sizes are typically smaller than standard university lecture classes. Community could help foster a sense of safety, compassion and connectedness amongst students in a classroom setting. Mindfulness leading to compassion and care in the classroom was mentioned by a few mindfulness practitioner. The research literature shows that mindfulness and compassion are related. For example, Sarath (2006) suggests that mindfulness can be a tool for cultivating inner calm, well-being, compassion and a range of other personal and transpersonal qualities. See appendices 144–145 for participants’ responses in detail.

- » Practicing mindfulness is a way of building community
- » Mindfulness in the classroom helps present a message of care.  
It also helps student’s develop compassion

*If any, what is the relationship between mindfulness and creativity?*

### **Mindfulness and creativity involve feeling happy**

According to Krumins, “mindfulness is about happiness. The retreat I took with Thich Nhat Hanh was called *Mindfulness for Educators: Happy Teachers Will Change the World*. When I am mindful, I am happy. I would challenge the person that says, ‘that is not a good idea’. To create a happy, joyful atmosphere in the classroom can also help facilitate creativity in the classroom”. He reinforces this statement by saying: “If I am angry, I am not in the frame of mind to be creative. When I am happy and peaceful, I am more apt to ‘pick up my guitar’”. As previously mentioned, the

research literature by Killingsworth and Gilbert (2010) shows connects between mindfulness, attention and happiness. It is possible that these different attitudes, traits and/or skills are linked in some way.

**In order to be creative, and to let ideas and experiences flow, there needs to be stillness and space**

Most interviewees expressed the view that there was a connection between creativity and a need for stillness and space. Johnston suggested that *“ideas can come from other ideas but when we are still, sometimes they just bubble up and flow.”* She adds: *“There was an interview with Paul McCartney who said [when writing a song] the song just flows. It is about flow which is about being in the moment and letting yourself be carried by and trust in the moment. For this there needs to be stillness and space.”* In the research literature, Davis (2014) alludes to the term stillness when describing mindfulness: *“[Mindfulness] includes the practice of single-pointed concentration, silence, and quieting the mind”*.

The term “flow” has also been used in the research literature. Distinguished Professor Csikszentmihalyi (1990) defines flow as a state of total immersion, effortless concentration, and rapt enjoyment in an activity in which one loses any sense of space, time, and self. One interviewee uses the term flow in a similar way while explaining her understanding of the connection between of mindfulness and creativity. She states that *“what mindfulness allows us to do is tap into our ability to let go of preconceived notions of how we should be and allow creativity to flow. The state of flow is a sense of timelessness and utter focus on what is right in front of me in this moment. There is no possibility for distraction. There is a sense of joy with flow”*.

According to Krumins, getting into a creative state cannot be rushed and requires space. He says that *“mindfulness creates space in various ways and they say it is difficult to meditate quickly...it is also difficult to think creatively quickly. You can think creatively I suppose, I do not know what that feels like, but for me, as being someone who is also an artist in a broad sense, I need space to be able to practice my art-making”*. Unfortunately, educational institutions do not always support this need of spaciousness for creativity. One mindfulness practitioner said that *“so much of the education system closes down creativity and what is needed in some ways is permission for space.”*



**Creativity relates to certain attitudes of mindfulness such as openness, interest, curiosity and patience**

Phillips mentioned that there are specific attitudes connected with mindfulness including non-judgment, acceptance, patience, compassion and beginner's mind. When discussing creativity, Phillips adds additional attitudes to the list: *"The relationship [between mindfulness and creativity] might relate to some of the attitudes of mindfulness including openness, interest and curiosity"*. The concept of beginner's mind could link to these attitudes. Taking on a beginner's mind means to see the world with fresh eyes in order to discover new possibilities. As the famous Zen saying goes "in the beginner's mind there are many possibilities, in the expert's mind there are few" (Suzuki, 1970, p. 21).

In relation to teaching and learning, being open to experiences aligns with a 'soft systems' approach which accepts confusion, diversity and complexity and uses these as resources to orchestrate inquiry and grow new learning. A soft systems approach sees different perspectives as routes that can be taken to open up and examine possibilities (Jackson, 2006). This approach connects with creativity traits and specifically creativity traits that were observed during one study, including the ability to produce and consider many alternatives, flexibility, and openness (Ayob et al, 2011).

As mentioned, patience is an attitude of mindfulness, according to Phillips. Another interviewee explained a connection between creativity, mindfulness and patience this way: *"If creativity is not just about grinding something out, if it is non-linear and if it benefits from patience, I think some of the capacities that are fostered by mindfulness will enhance creativity."*

**Mindfulness may help people become more aware of their creative blocks**

Phillips suggests that *"practicing mindfulness might also bring awareness to blocks that one might have. Through contemplation...one could explore these blocks."* This statement reflects what has been mentioned in the research literature. According to Professor Dhiman (2012), mindfulness as a meditative practice can help tremendously in raising the awareness level of the contents of the mind (Dhiman, 2012). The practice can raise

awareness through awareness of one's experience (Fodor and Hooker, 2008). For example, when doing an eating meditation, you must "be aware of any thoughts you might be having about the raisin. Note any thoughts or feelings of liking or disliking raisins if they come up while you are looking at it" (Kabat-Zinn, 1990, p. 27). This noting may help one gain insight into their thoughts and feelings. Thus, practicing mindfulness may allow one to understand a situation better and therefore, understand the causes and conditions of a particular creative block. Understanding and exploring this may help one transform a block into a new insight.

### *Additional mindfulness-related themes*

#### **Mindfulness and reflexivity**

According to the education specialist, mindfulness is related to reflexivity. She states that *"I have always supported mindfulness in my teaching by having students engage in reflection. That may be something like writing a blog or a dialogue journal."* She supports this idea further by stating: *"Some [former education students] tell me that they have continued to use a journal [while teaching]. They say that it is beneficial because it makes them stop to think and makes sure their minds on, not just their hands. To me, that is where I see mindfulness in education: reflexivity. Reflexivity is about being contemplative of everything you're doing on the job. Mindfulness may be the umbrella term and under it would be reflexivity as one piece of it."* Some of the research literature concerning contemplative pedagogy supports this notion that mindfulness and reflexivity connect. According to Barbekzat and Bush (2014), contemplative pedagogy uses forms of introspection and reflection that allow students to focus internally and "find more of themselves" in their courses.

Krumins also emphasizes the importance of reflection and particularly amongst educators. He states that *"educators have to ask themselves the question: What is the purpose of education? Why are we here? Is it only about gaining information knowledge? Or is it about building a better society?"* Thus, educators who practice mindfulness and take time to reflect can further understand their own teaching philosophy.

#### **Additional comments**

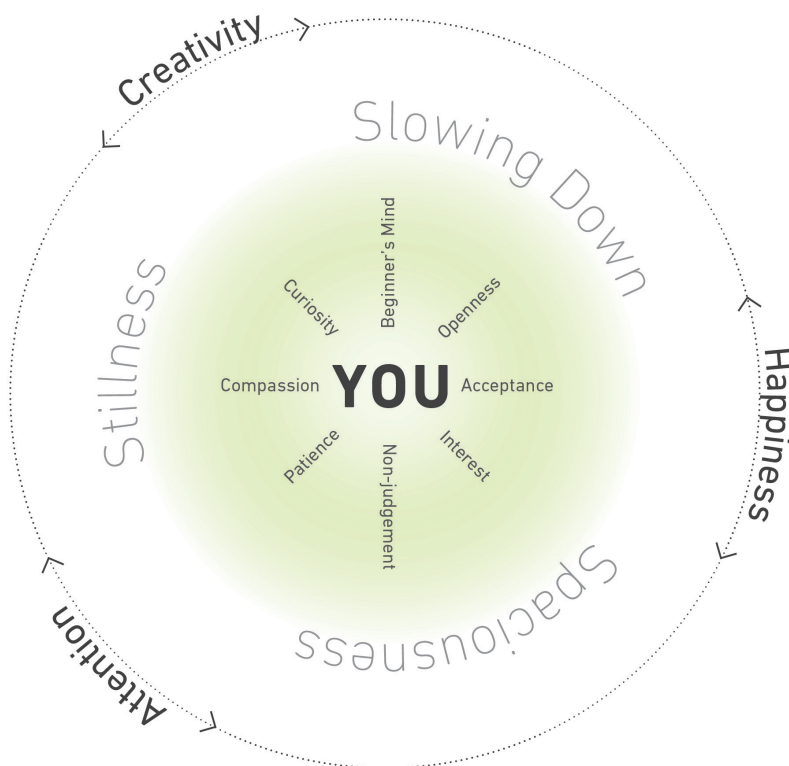
The following sentences are additional comments made by interviewees. In order to make the findings concise, the comments are summary statements of interviewee responses. They have been included in this section because they help inform readers about what mindfulness is and is not.

They will not be examined based on the limited scope of this project. It is possible that there are connections between these themes and creativity; however, interviewee responses did not show any specific or direct connections. See appendices 146–147 for participants’ responses.

- » Mindfulness does not have to be serious
- » Mindfulness is a natural state of mind
- » There are connotations related to the term meditation

### 3.12 MINDFULNESS PRACTICE VISUAL FRAMEWORK

One objective of analyzing specific themes was to identify key concepts related to mindfulness, that could be organized into a useful framework. The framework would help communicate these core concepts visually in order to illustrate them more easily and clearly. It also shows how creativity relates to mindfulness practice, an important component of this thesis project. The framework was designed using mindfulness practitioner interview responses as well as selective responses from the education specialist. It was also designed using some aspects of my personal experience that were explained in the “Context: Mindfulness and Me” section of this thesis report (page 8–12).



Since individuals are responsible for cultivating their own skill of mindfulness, which can be achieved through intentional practice, I thought it was important to position “you” in the centre of the framework. Also, as one practices and cultivates mindfulness and its related-attitudes, they can become more “centred”. Baillie (2006), discusses the concept of being centred in the research literature. She describes “being centred” as feeling balanced, content and comfortable in one’s own skin. Designing the framework with “you” in the centre also allows viewers to connect with the framework by positioning themselves within it.

Surrounding “you” are various mindfulness-related attitudes that were mentioned during the interviews with different mindfulness practitioner. Phillips calls these constructive traits as “life-enhancing attitudes.” One can cultivate these attitudes through mindfulness practice or one can practice these attitudes as a way of cultivating mindfulness. A common theme brought up in the interviews was that if one allows oneself to slow down and feel a sense of spaciousness and stillness, one can experience mindfulness and its related attitudes. One can also experience stillness, spaciousness and a slower pace to life by practicing mindfulness. These interconnected relationships suggested that the framework could be designed as concentric circles; it can be viewed from the outer ring going inward or from the inner ring going outward. A reason that the framework is designed as concentric circles is that the process of cultivating mindfulness is non-linear. As mentioned in my personal anecdote, I have experienced different phases in life where my mindfulness practice is strong and stable and at other times it is weaker, due to various causes and conditions. The process of cultivating mindfulness has been ongoing, cyclical and iterative.

On the outer ring, there are three core components: happiness, creativity, and attention. Some interviewees emphasized the idea that happiness and mindfulness are inextricably connected; as one becomes more mindful, they also feel happier. They also mentioned that as one feels happier, one is more inspired to be creative. According to Killingsworth and Gilbert (2010), another connection links happiness and attention. The more refined our attention is in the present moment, the happier we are. Thus, it is possible that all three of these components are connecting in some way and so they are positioned together on the same ring. The dotted line and arrows act as a pathway that allows the viewer to see the connections from either direction (clockwise or counterclockwise).

In summary, as you practice mindfulness with a sense of stillness, spaciousness, and a slower pace to life and cultivate mindfulness-related attitudes, you can become more creative, happy and attentive in the present moment. Or, in order to be more creative, happy and attentive of the present moment, you need to be centred through a sense of spaciousness, stillness and slowing down. This requires you to cultivate mindfulness-related attitudes.

### *Mindfulness-practice related themes summary*

This section reported and analyzed different themes that emerged during interviews with mindfulness practitioners and an education specialist. These themes were related to what is mindfulness, how it is practiced, how it can be incorporated into a classroom setting and what, if any, are the relationships between mindfulness and creativity. The importance of examining these concepts was that it provided the foundation for a framework as a visual aid, that may help design educators and students understand mindfulness and its related concepts.

Because one main focus of this exploratory thesis project is the intersections between creativity and mindfulness, one of the most noteworthy findings was that creativity, attention, and happiness connect in some way. The specific relationship was not made clear; however, based on interview responses and the literature review, mindfulness relates to attention and happiness, attention relates to mindfulness and happiness, and creativity relates to happiness and attention. Another important finding from this section was that mindfulness could be cultivated by exercising certain “life enhancing” attitudes such as non-judgment, acceptance, patience, compassion, beginner’s mind, interest, curiosity, and openness. Also, these attitudes can help cultivate mindfulness. Some of these attitudes will be connected to other findings and further examined in the sections that follow.

### **3.13 IDEATION AND CREATIVITY-RELATED THEMES**

One reason for interviewing design educators and an education specialist was to understand whether mindfulness practice is currently being incorporated into educational contexts. Below are ideation techniques that are described under mindfulness-related themes (as titles). This section is followed by descriptions of additional ideation activities and their connection to mindfulness. Following that are responses from interviewees about creative blocks.

### *Beginner's mind*

The following activities show connections to the attitude of “beginner’s mind.” When taking on a beginner’s mindset, one looks at something, or an experience, with fresh eyes in order to allow for the generation of new possibilities. Projects that have to do with exploration, as well as projects that look at objects or themes in new ways, appear to have a strong connection with this mindfulness-related attitude. For example, Shuman’s explanation of an exploratory workshop activity describes this attitude of beginner’s mind explicitly. She states: *“I emphasize the importance of looking at the world with fresh eyes to be able to capture forms that have interesting lines, shapes, patterns...I emphasize the idea of unlearning what the forms are; this helps students look at them with a new perspective.”* A more thorough explanation of the project is included below, among other design activities and/or projects.

#### **Exploratory workshop activity (Shuman’s activity)**

*[In the first phase], I invite students to take photos of forms (living and non-living objects) in their environments. I emphasize the importance of looking at the world with fresh eyes to be able to capture forms that have interesting lines, shapes, patterns.*

*Students use tracing paper to trace lines, shapes and patterns from the various photos of forms that they took. I emphasize the idea of unlearning what the forms are; this helps students look at them with a new perspective. One of the techniques is to rotate the photo upside down so that they stop seeing for example a chair as a chair, instead they see it as a new interesting form...I also invite students to connect lines, shapes, and patterns from various photos.*

*Students in [the next] phase are encouraged to generate as many visual ideas as they can, without spending a lot of time polishing/ fine tuning them...I invite students to choose 2 or 3 modules of their outcomes [from the previous phase] and draw them with illustration software. I encourage students not to spend a lot of time fine tuning these modules until they choose one that works the most with their design strategies.*

*The obvious objective of this exercise is for students to generate unique forms rather than creating a logo or a logotype that is similar to many others in the ‘market’. Other learning objectives*

*include encouraging students to view the world around them with fresh eyes. Hopefully this exercise allows them to realize that they can find inspiration where they least expect. The trick is to learn how to unlearn the way we view and experience our daily environment.*

### **Exploratory projects (Armstrong's project)**

*An example of an exploratory project that I do is the Object Project. A student starts by creating an object so that they do not have preconceived ideas about it. When they do the explorations, they do not know the end point. I also give them a list of criteria to allow them to go through exercises that they normally would not. When students are given this opportunity, they see things in new way and often have "light bulb" moments.*

### **Decontextualizing and reinventing (Armstrong's activity)**

*I bring an object that everyone knows about, such as a pot, and then ask students to try and look at that object in a completely different way. A question that I ask students is: Can you tell me a story about yourself that relates to this object that has nothing to do with its normal function? This takes something out of its normal context and reinvents it.*

### **Altering the design (Armstrong's activity)**

*Sometimes students will have come up with a fairly final solution to a design at the early stages of a project and they are seeing it in a certain way. In order for them to test out their design and look at it in new ways, I get them to alter it. I set a timer and ask them to make quick thumbnail sketches. I prompt them by saying: Make it fun. Make it sad. Make it this. Make that. Then, they compare their alternations to the original design to see different types of communication.*

### **Non-judgment**

As previously mentioned, nonjudgmental awareness means that instead of judging our inner and outer world, we should just be with, and open to, an experience (Kabat-Zinn, 1990). It appears that many activities within design education relate to this concept of non-judgement, through the use of quick or timed activities. According to Harvey, "working quickly

*makes students not edit themselves; it helps them become less critical at the beginning stage of the design process.” Armstrong adds that “timing the exercises makes things less precious”. In other words, in certain stages of a design process, students that have less time to generate ideas may be less likely to critique or judge their work in the present moment. Instead, they can be open to different possibilities and outcomes. Below are descriptions of design projects to help illustrate the use of quick exercises in a design classroom.*

#### **Quick or timed exercises (Harvey and Armstrong’s activities)**

*“Visual telephone” starts with a piece of paper. One person writes a sentence on it and then passes it to the person next to them who draws something. Then they pass it to the person next to them and the next person responds to the drawing and so on. It helps get the juices flowing (Harvey’s activity).*

*[When using sticky notes] you quickly write ideas on sticky notes and organize them to show a hierarchy or a way of categorization (Harvey’s activity).*

*I gave students 5 minutes to think of 50 words related to a topic and they wrote them down. Timing the exercise makes things less precious. Once students are done, they chose 6 words from their list and wrote each word on a separate piece of paper and put them into a bag. Then, another student in the class had to pick a word from the bag and visualize it using four straight lines and a circle (Armstrong’s activity).*

*Students write out a sentence and then pass it to the student sitting next to them to write down another sentence [when doing a group story exercise]. After a specified amount of time, the students read the stories out loud to see where it started and ended (Armstrong’s activity).*

#### **Sensing**

Burnett, Co-founder of the Mindfulness in Schools Project, discusses the concept of sensing mode (in contrast to thinking mode). Sensing is a way of directing our attention to the present moment. It is important to practice sensing because if we spend too much time in thinking mode,



our thinking can go into overdrive and we begin to ruminate and dwell (Burnett, 2013). Harvey, discussing this concept of sensing as a way of ideating, states:

*Exercises where you free your conscious mind can help you be creative. If you sense something and put it on paper, you can really work on it, but if you think too much about it, then the task becomes a chore...when you sense what you are doing, you do not spend too much time ruminating about all the possibilities or about what comes next.*

### *Aesthetic meditation*

According to mindfulness practitioner Krumins, an aesthetic meditation is a practice that uses aesthetic means, whether it is clay, paint, collage, movement, dance, puppetry or other means to help cultivate mindfulness. This practice is not about focusing on the product being created, but rather, it is about focusing on and trusting in the process of creation. Design educator Armstrong describes an activity below that shows similarities to this type of meditation practice. Also, we can see that Armstrong alludes to the concept of non-judgment by stating: *"Students were not being critical of what they were creating...they were not trying to correct it."* Below under the subtitle "Workshop activity" there is a complete description of this aesthetic meditation.

The second activity described below, titled "Create online scrapbook" described by the education specialist, could be considered an aesthetic meditation. However, she did not explain the specific process students go through while creating this scrapbook and because this type of meditation is process-oriented, it may or may not fit in this category.

### **Workshop activity (Armstrong's activity)**

*An artist comes in and plays a song for the class. The students illustrate the rhythm visually by using patterns and non-representational forms...they then use colours that seem to communicate what they were hearing.*

*Next, they choose words as emotions or tones related to the music. From all of that, they have to build a visual and written narrative that expresses what was communicated during the workshop.*

### **Create online scrapbook (Education Specialist's activity)**

*Instruct students to create a scrapbook about an issue that could be used as part of the controversial issues component of the classroom curriculum.*

### **Additional ideation activities**

The following are additional activities used in design classrooms that show connections to mindfulness and mindfulness-related attitudes. It is not clear if they are mindfulness-focused because they may tap into either sensing or thinking modes of learning. Because of the limited scope of this project, I examined only a few of the ideation techniques. For complete descriptions of the ideation activities, based on interview responses, see appendices 150–151.

### **Mind mapping and design matrices (Van Der Ree's activities)**

According to Van Der Ree, when mind mapping, students *“start with a theme or an idea and create roots or ramifications from it. The roots create different connections. A student needs time to make these connections in order to be original and go beyond the surface.”* Since this activity takes time to complete, students may be inclined to conceptualize and think through their ideas thoroughly. However, they may also create connection based on ideas that “bubble up” intuitively.

In his explanation of aesthetic meditations, Krumins talks about meditation as a process that will hopefully spark students' imagination and their non-rational mind in order to listen to their intuitive “voice”. It is possible that some students engage in mindfulness practice while others take an analytical approach to problem-solving while mind mapping. It is also possible that students take on both approaches while ideating. This analysis could also be applied to other ideation activities mentioned such as the design matrix exercise where students *“...have a topic and you have themes that are set up on a grid or matrix. You then make connections between the topic and themes to force you to think in different ways.”*

### **Sketching (Van Der Ree and Harvey's activity)**

Sketching is a common ideation activity within a design education context. Harvey incorporates sketching activities into her classroom; however, she says that *“I do not do this too often because I think students*

*work better when they are asked to do something quickly and not spend too much time thinking.*" This statement reflects Harvey's value of time-based ideation exercises, which appear to share characteristics with an attitude of non-judgment.

Van Der Ree, who also incorporates sketching activities into her design classroom, says that *"if you draw out your ideas and then put them away, you will be more present when you are trying to think of other ideas. Sketching helps you put thoughts on paper and easily move forward because you do not have to remember your ideas."* This reflects an attitude of mindfulness and especially with regard to the idea of "being more present". Nonetheless, it is not clear if sketching requires a certain level of thinking (opposed to sensing). Van Der Ree states that sketching *"...is not just doodling...Sometimes ideas can come from doodling through repeating certain forms which can then transform the idea. [Sketching] is about instant creation and immediate evaluation."* This immediate evaluation may require critiquing and therefore, judgment.

#### **Requiring specific deliverables (Van Der Ree's method)**

One technique mentioned by Van Der Ree was that requesting students to work towards creating specific design deliverables could help them generate ideas. She states: *"Having specific deliverables could trigger creativity because when a project is so open, a student can get lost. Deliverables can give them a path to follow which is especially important for young students."* Thus, too much openness to exploration may be problematic for some students. This appears to contradict an aforementioned analysis which indicated that exploratory projects aid students in cultivating a beginner's mind. It is possible that having a balance between providing direction and allowing for openness is important in learning environments and among certain types of students.

The concept of requiring specific deliverables could be compared to mindfulness practice. For example, mindfulness practice is often done using guided meditations. Thich Nhat Hanh (2009) wrote a book entirely dedicated to guided meditations in which he wrote that guided meditations can make the practice more concrete and, because of their systematic nature, can open new ways of practicing. This suggested that providing some direction in a project and meditation can also help students focus while seeing ideas in different or new ways.

### **Other ideation activities**

The following ideation activities also emerged from the interviews with design educators (appendices 150–151) and the education specialist (appendix 138). Activities with the title “for education students” were mentioned by the education specialist. I will not be examining these activities due to the limited scope of this project. It is possible that there are connections between the activities and mindfulness. For example, “creating metaphors” to articulate certain concepts could be done using sensing mode opposed to thinking mode, which links to mindfulness according to Burnett (2013).

- » Using designs principles
- » Investigate case studies
- » Develop learning centres (for education students)
- » Design the ideal classroom (for education students)
- » Develop learning centres (for education students)
- » Create metaphors (for education students)

### ***Why might a student experience a creative block?***

The following findings demonstrate why students might experience creative block. It is possible that some of the creative blocks could be “unblocked” or alleviated through mindfulness practice. These are examined below.

Because of the scope of this project, I am limiting my examination to certain findings (for further explanation see “other reasons for creative blocks” below). Also, for more complete descriptions of the reasons for creative blocks, based on interview responses, see appendices 151–154.

### **Having preconceived notions and lack of experience**

Armstrong states that one reason students may experience a creative block is that they “...*have preconceived notions of what their design is going to look like and they cannot see it any other way.*” As previously mentioned, according to an interviewee, mindfulness allows us to tap into our ability to let go of preconceived notions. It is possible that having preconceived notions about something may be due to a lack of experience and specifically in knowing different strategies for resolving a design. According to Van Der Ree, “*students might not know how to*

*improve their designs because they lack experience". Shuman echoes this idea by stating that "...the difference between a novice designer, or a design student, and an experienced designer is that the latter develops strategies to quickly cope with creative block."*

Nonetheless, according to Zen philosophy, it could be said that experienced designers who have an established practice may also struggle with preconceived notions. In traditional practices it is said that there are many possibilities in the beginner's mind, while in the expert's mind there are few (Suzuki, 1970). This is why cultivating a beginner's mind through mindfulness practice could be useful for novice or experienced designers. It is possible that if we look at a concept or object, (such as a design or design artifact), in new ways, we can break away from our preconceived ideas and arrive at more original concepts.

#### **Using the first idea that comes to mind and lack of interest**

Taking on a beginner's mind and an attitude of curiosity may help students who experience a creative block. Shuman suggests that a student may experience this type of block because they use *"the first idea that comes to their mind rather than exploring various approaches prior to making the design decision. Most of the time, initial ideas lack research and investigation, which makes these ideas superficial."* The term "investigate" is sometimes used in mindfulness practice and especially when discussing the attitude of curiosity. Bernhard (2013) describes the technique of recognizing, labeling, and investigating thoughts and feelings, such as desires, in order to become more curious about these sensations. She explains that we investigate sensations and feelings, such as desires, with "nonjudgmental curiosity". As we investigate and become more curious about what is happening in the present moment, we can *"...turn mundane activities into richly texture moments"* (p. 81). Taking on this mindfulness-related attitude of curiosity could help students to be more interested in exploring design possibilities, instead of only exploring one approach. This may also help students who lack interest in a specific project. According to Van Der Ree, *"if you have no interest in the project, then you wont be engaged or inspired to be creative. It helps a student to be creative if they have a level of connection with the project's theme or topic."* This suggest that mindfulness practice could help students become more interested and engaging in a project by helping them utilize and cultivate attitudes of beginner's mind and curiosity.

## **Stress**

According to Shuman, *“stress leads to negative thinking and a fixation on problems. These thinking patterns block the flow of creativity, which requires flexible thinking and a solution-focused approach to responding to challenges.”* This reinforces a comment made by Krumsins about the connection between mindfulness, happiness and creativity where he states: *“To create a happy, joyful atmosphere in the classroom can also help facilitate creativity in the classroom”*. Much of the research on the benefits of mindfulness practice focuses on how meditation ameliorates stress. This is especially evident with regard to the research on Mindfulness-Based Stress Reduction (MBSR) therapy, a renowned program for reducing psychological symptoms among anxiety (Kabat-Zinn et al., 1992). So, introducing students to mindfulness practice could help them to manage their stress and, in turn, this may be a method for allowing creativity to flow more easily.

## **Technical barriers**

Van Der Ree states that *“students might not know how to create their designs using certain software. They can visualize their idea but they do not know how to execute it.”* So, certain technical barriers can prevent a student from being creative. In this case, a student may need to gain more experience with specific software programs in order to execute their designs the way they would like to. Mindfulness practice could help students manage stress and frustration when dealing with technical barriers or practice patience and kindness to oneself when overcoming frustration due to those barriers.

## **Lack of time and poor time management skills**

Armstrong suggests that *“some realities such as ‘there is no more time’ may result in a creative block.”* Similar to technical barriers, mindfulness practice cannot help to resolve this issue directly. Nevertheless, mindfulness practice may help students develop better time management skills by improving their skill of attention. As previously mentioned, mindfulness practice can improve different aspects of attention such as the ability to sustain one’s attention, as well as the ability to reduce proneness to distraction (Moore and Malinowski 2009). Improving time management may help students generate creative ideas because according to Shuman, poor time management may be a reason for creative blocks: *“Poor time management is very common and*

*extremely normal among young design students. It leads to creative block because design assignments become burdening items on students' 'to-do-lists' rather than interesting challenges that they would love to conquer."*

### **Other reasons for creative blocks**

The findings below are related to other reasons for creative blocks that emerged from the interviews, but they will not be examined due to the limited scope of this project. It is possible that there are connections between these reasons and mindfulness; however, interview responses did not show any specific or direct connections. See appendices 152–153 for participants' responses in detail.

- » Lack of research
- » Using software to develop ideas

### *As an instructor, how would you help a student overcome a block?*

The following findings show ways that instructors might be able to help a student overcome a creative block. It is possible that some of these are connected with mindfulness practice. Because of the scope of this project, I am limiting my examination of the findings (for further explanation see "other ways for helping students overcome a creative block" below). For more complete descriptions of the reasons for creative blocks, based on interview responses, see appendices 153–154.

### **Make a suggestion to put the work away for now**

One way that an instructor can help a student overcome a creative block is by making a suggestion to put the work away for the time being. Shuman states: *"If we are at the early stages of a project and a student experiences a creative block, I would encourage him or her to shut down his/her computer and take a walk or do something completely unrelated to the project."* Harvey further supports this idea by stating *"I tell them to put it away and do something different...Putting it away is useful because your mind can think about something else and free up space which is why I think mindfulness has a place in this discipline."* In Harvey's response, we see a direct connection between ideation and mindfulness. It should be mentioned that Harvey invited me into her classroom to do a few mindfulness-related ideation activities and therefore has some experience with the practice. Nonetheless, the idea of "freeing up mind space" was not discussed as part of the in-class activity.

Baillie (2006) suggests that mind and body exercises, which resemble mindfulness practice, can help to promote a general creative potential by freeing us of tensions and they are also intended to encourage deeper insights. Teacher and author Schoeberlein (2009) also discusses this “freeing up of mind space” through the benefits of mini mindfulness breaks. She incorporates these breaks into her classroom settings in order for students to gain mental energy and space for the mind as a way of finding solutions.

#### **As an instructor, exercise one’s own creativity abilities**

Van Der Ree states that *“an instructor has to be very creative so that they have ideas and can make suggestions to their students.”* Thus, it could be stated that an instructor should exercise their own creative abilities in order to provide useful feedback and model behaviour. This theme reflects some of the comments made by mindfulness practitioners in their interviews about the importance of instructors having their own practice if they choose to incorporate mindfulness in to the instruction.

Phillips says that actions speak louder than words and according to another interviewee, *“students will pick up on if their teacher is actually mindful or if they are just going through the motions”*. Thus, having one’s own practice, whether that is creativity or mindfulness, could help students further develop their creative abilities.

#### **Encourage students to seek inspiration**

Shuman believes that encouraging students to seek inspiration will helped them overcome creative blocks. She states: *“I encourage students to seek inspiration from various art forms. I have personally found cinema to inspire me a lot. I ask students to visit a gallery, listen to music and engage in whatever art form interests them. I think artistic expression embodies a lot of freedom, which presents a significant reminder for designers to ‘loosen up’ and explore unfamiliar territories”*. The very nature of mindfulness allows us to utilize and cultivate attitudes that aid the process of exploration, such as being interested, open, curious, and patient, among others. These attitudes may add an element of enjoyment and playfulness to the design process. Krumins alludes to this playfulness as it relates to mindfulness by saying: *“mindfulness allows us to slow down, to play, and to wonder.”*



### **Getting students to work in groups**

One comment made by the education specialist was that allowing students to work in groups could help them overcome creative blocks. She states: *“Getting students to work in groups is a good way to stimulate creativity. Instructors can throw out an idea to investigate and then, working as a team, students explain the issues and bring personal experience to how they would interpret these issues. Then as a group, the students decide how to resolve the problem.”* Because mostly mindfulness is practiced individually, or as Krumin’s states, it is practiced “alone together”, it may appear that there are no connections between mindfulness and group activities. However, the practice of “deep listening” could be useful in this type of setting.

Deep listening involves being attentive and open to what others saying in order to fully understand what is being communicated. According to Thich Nhat Hanh, “...during the process of deep listening, we can learn so much about our own perceptions and [others] perceptions.” It is possible that mindfulness practice could aid students in understanding their own thoughts, feelings and sensations related to creative blocks, which could help them understand the causes and conditions that led to the block. This idea is supported by a statement made by Phillips about creative blocks. She states: *“Practicing mindfulness might also bring awareness to blocks that one might have. Through contemplation...one could explore these blocks.”*

### **Other ways for helping students overcome a creative block**

The following findings are other ways of helping students overcome a creative block emerged from the interviews, but they will not be examined due to the limited scope of this project. It is possible that there are connections between them and mindfulness. For example, one educator suggested that a student should try sketching or drawing out ideas. As mentioned, sketching could be considered a mindfulness practice; however, it could require both mindful and mindless behaviour such as “sensing” and “thinking”. See appendices 153–154 for participants’ responses in detail.

- » Provide suggestions at improving the design
- » Encourage students to try different approaches
- » Share reference materials
- » Teach a specific class more than once
- » Suggest sketching ideas through drawing and writing

### *Ideation and creativity-related themes summary*

This section reported and analyzed different findings related to ideation techniques in learning environments as well as why students experience creative blocks and how they can be overcome. Findings about ideation techniques reveal that certain ideation activities mimic certain mindfulness-related attitudes. For example, *exploratory projects* resemble the attitude of beginner's mind and *timed exercise* resembles the attitude of non-judgment. Other findings showed certain ideation activities sharing connections with aesthetic meditations. Activities or techniques such as *mind mapping* or *sketching* could relate to mindfulness practice; however, it was unclear the extent to which they do because they may also follow a "sensing mode" and "thinking mode". A "thinking mode" may go outside of mindfulness techniques if one has a tendency to dwell on the past or contemplate the future.

Findings showed that reasons such as stress, poor time management, lack of interest, among others might lead to creative blocks. Mindfulness practice could help mitigate the effects of some of these experiences. For example, mindfulness is known to ameliorate stress and anxiety and therefore, it could allow a student work through a block. Mindfulness cannot help a student overcome certain reasons for a creative block directly such as technical barriers and lack of time to complete a project. Instructors could help students overcome certain creative blocks by exercising their own creative abilities, making suggestions to students to seek inspiration, putting them in collaborative group settings, among other techniques. Mindfulness practice resembled to some of these tactics both directly and indirectly. For example, mindfulness is typically practiced alone and not collaboratively; however, the practice of deep listening could aid a group dynamic.

### 3.2 Identifying Themes: Exploratory Workshop

The questionnaire given to students after they participated in the workshop provided an abundance of quantitative and qualitative data.

Because of the limited scope of this project, I will be expanding only on some of the most common, relevant and unique findings. To read the all of participants' responses in detail, see appendices 220–244.

To view participants' visual creations and explorations from the workshop, see appendices 195–219.

*Years of college and/or university:*

**The majority of participants had 5 or more years of post-secondary experience**

(No. of participants = % of respondents)

1 = 4 years (12.5%)

7 = 5+ years (87.5%)

*Number of design courses completed in college and/or university:*

**Design education experience varied among participants**

1 = 1–5 course(s) (12.5%)

2 = 5–10 courses (25%)

1 = 10–15 courses (12.5%)

1 = 15–20 courses (12.5%)

3 = 20+ courses (37.5%)

*Type of design courses taken:*

**Type of design education experience varied among participants.**

**The majority of participants have taken visual communication design courses**

3 = Industrial Design (37.5%)

4 = Visual Communication Design (50%)

1 = Industrial Design and Visual Communication Design (12.5%)

*Level of mental clarity before and after activities:*

**All participants reported that they experienced an increase in mental clarity after the activities**

7 = Greater now (87.5%)  
1 = Other: slightly better (12.5%)

*Degree of easiness to ideate and create visual explorations:*

**More than half of the participants (62.5%) reported that it was easy to some degree to create visual explorations**

1 = Somewhat difficult (12.5%)  
3 = Neither easy nor difficult (37.5%)  
2 = Somewhat easy (25%)  
2 = Easy (25%)

*Reporting of creative insights during specific activities:*

**More than half of the participants (62.5%) reported that they experienced creative insight during the collage activity. All participants experienced creative insight in the final free-drawing activity**

2 = Blind-contour drawing (25%)  
(described as “hands on exercise” and “table exercise”)  
5 = Collage (62.5%)  
(described as “hands on exercise”, “table exercise” and collage)  
8 = Free-drawing (100%)  
(described as “hands on exercise”, “table exercise” and free-drawing)

**The activities seemed to help some participants gain new perspective and explore possibilities**

Participant Deprise Hutton states: *“Usually I am all over the place with my ideas and I feel that some ideas are not even worth writing down. But after the exercises, I was open to everything and I thought outside of the box.”* It appears that the activities helped Hutton maintain an open mind which led to creative thinking. According to interviewee Phillips, openness is one of the life-enhancing attitudes that are practiced while being mindful. Being open to experience links to the attitude of beginner’s mind which allows a meditator to look at an experience, or object-of-focus, in a different or new way. Hutton adds: *“I found the activities helped me look at things differently, like my hand [during the blind-contour drawing activity].”*

Another workshop participant's response echoes Hutton's comments. She writes: *"I think the activities were very effective at helping me generate ideas. The sessions guided me to consider ideas that were beyond myself, and explore further than I would have on my own."*

### **Mindfulness practice seemed to help some participants not over-think what they were doing while taking part in the creative process**

Participant Adam McKertcher mentioned a factor that might have led to creative insight. He states: *"I definitely felt like I was not over-thinking things. I was able to see designs/ideas for what they were and embrace them without feeling self-conscious."* Participant Devaki Joshi echoes this idea by stating: *"I felt that meditation played a great role in the design/activities. It helped me understand and embody what I sensed. I did not analyze what I sensed but experienced it and allowed it to flow. I feel in design this would help avoid over-analyzing during ideation and conceptualization processes. This could bring a balance of analyzing and sensing"*. Not over-thinking or over-analyzing ideas, a comment also made by interviewee Johnston links to Burnett's explanation of sensing mode vs. thinking mode. In his TEDx talk, he says that even though thinking mode is an important tool in certain contexts, when our thinking mode goes into overdrive we tend to ruminate and create mental knots (Burnett, 2013). Mindfulness meditation can help untangle these knots by helping one cultivate mental clarity and insight (Sarath, 2006).

### **Some participants reported feeling less pressured to perform while practicing mindfulness and engaging in the creative process**

Five of the eight participants made comments on the questionnaire about how they felt little pressure to perform while engaging in the activities. One participant wrote: *"I would say it was very easy [to ideate and create visual explorations]. I felt relaxed with no pressure to perform."* She adds that *"I was satisfied with the results, but felt they were less about generating actual concrete ideas [and more about] my own 'brain' time where I was able to explore without any pressures."*

Some of the design educators addressed this idea of exploring ideas without the pressure of self-critique or self-evaluation. Harvey mentioned that quick exercises are useful because students do not edit themselves. Armstrong suggested that timed exercises make designs less "precious". It is possible that this type of exercise also allows

students to feel less pressured or insecure about creating polished and well-designed ideas or artifacts from the start of the creative process. Secondary research on the topic of creative blocks indicates factors that inhibit creativity include feelings of insecurity, fear of failure or criticism, hyperactivity or lack of faith in self (Crosson, 1987). Mindfulness practice counters these types of feelings in that it seeks to foster an attitude of non-judgment.

**According to some participants, more time would be preferred for mindfulness practice**

Three different participants reported that they would have preferred more time doing certain activities in order to create more satisfying outcomes. Jiao Wang stated: *“The reason why I am not too satisfied with my creation in the free-drawing session is I only had limited time.”* Another participant writes: *“I personally would need more time exploring for the free-drawing, but I strongly feel that mindfulness and meditation are useful for being centred in one’s self and for getting to more honest and authentic ideations.”* Thus, even though some participants would have preferred more time to explore, mindfulness meditation was perceived as being useful for ideation. Interviewee Krumins alludes to this idea of needing a certain amount of time to be creative. As mentioned, he says that *“mindfulness creates space in various ways and they say it is difficult to meditate quickly ...it is also difficult to think creatively quickly”*. This spaciousness needed for creativity, and mindfulness, could relate to the idea that ideas flow more easily when there is less pressure surrounding the creative process.

**Most participants reported feeling more mentally present, calm and/or focused after doing the mindfulness-related activities. For some, this may have lead to creative insight**

Seven of the 8 participants made a comment about feeling more present, calm, and/or focused through engagement in the activities. One participant wrote that a factor that could have led to creative insight was *“being more calm and focused in the present...and leaving behind the stresses and other concerns of the day.”* Participant Wang echoes this idea by stating: *“I loved breathing, the exercise before [the other ones]. It gave me a clear mind and peaceful attitude to focus on what I am doing right now.”* McKertcher explains why these exercises were useful to him

for ideation with regard to feeling centred and present. He states: *“I believe that these exercises helped me reduce/remove a mental filter that may prevent me from putting ideas down on paper.”* Having a “mental filter” could relate to what design educator Armstrong refers to as having “preconceived notions” about a design. It is possible that having preconceived notions could lead to “mental knots” (due to overthinking or rumination). As depicted in the framework derived from interview responses, in order to gain mental clarity and insight through mindfulness practice, it is important to allow for the experiences of stillness, spaciousness and a sense of slowing down. These experiences could lead to what Wang refers to as a “peaceful attitude”.

### **Mindfulness practice led some participants to creating visual explorations that they perceived as “unexpected”**

Two different participants made comments about their design outcomes being unexpected. Joshi writes that she experienced *“...unexpected results [which allowed me] to flow with the senses.”* Participant Travis Holmes echoes this by stating: *“The results were surprising and unexpected”*. According to interviewee Johnston, sometimes ideas just bubble up and creativity begins to flow. It is possible that this “bubbling up” of ideas could lead to unexpected outcomes. Johnston also suggests that flow is about being in the moment, which requires some degree of stillness and space. Taking on a beginner’s mind approach to mindfulness could result in unexpected outcomes because, when we look at a task or object with fresh eyes, we can begin to see it differently. A different perspective could transform ones’ way of thinking and lead to new possibilities and outcomes.

### **The stakes were low in the workshop**

One participant made the following comment in the questionnaire: *“I was happy with the results, but the stakes were low. I would be interested to apply the techniques to a real-life project.”* It was important to highlight this comment because it shows a different topic for research. Because participants were creating explorations that were not evaluated by an instructor or facilitator, results may have differed in comparison with a design classroom setting. Thus, investigating mindfulness practice in an actual classroom project could be an area for further research.

### **The activities inspired some participants to consider taking part in mindfulness practice beyond the workshop**

An interesting finding was that some participants reported being curious to exploring mindfulness practice further. McKertcher wrote: *"I felt as though the exercise was helpful and will definitely be exploring concepts/ topics related to mindfulness in the future, especially in a design context."* Hutton echoes this by stating: *"I found this process very eye-opening. I need to be more mindful within my day-to-day life which would help my creativity."* It should be mentioned that there may be a novelty bias in that participants who have not practiced mindfulness before may feel excited by the new experience. Participants shared a lot of eagerness through the comments in the questionnaire, but the extent to which this eagerness would remain after multiple mindfulness workshops could not be determined in this research project. These findings could differ under other circumstances.

### ***Exploratory workshop findings summary***

This section reported and analyzed responses from a questionnaire that was given to participants after an exploratory workshop. Participants were design students with varied amounts of design education experience. The major of participants had taken Visual Communication Design classes. All participants reported experiencing a greater sense of mental clarity of the mindfulness-related activities and many of them reported experiencing creative insights at different points in the workshop, and especially in the last free-drawing activity. It was reported that these insights might have been from not over-thinking, feeling less pressured to perform and having space to be able to explore possibilities. Some participants would have preferred more time to explore, particularly in the free-drawing activity. It is possible that findings could differ if the research was conducted in an actual design classroom and over an extended period of time.



## 4. Discussion

### 4.1 Limitations

#### 4.1.1 SEMI-STRUCTURED INTERVIEWS

Interviewing using a semi-structured method proved to be useful in that the interviewee and I were able to navigate throughout the process together while exploring ideas to guided questions. However, I did notice that one of the questions for the mindfulness practitioners was interpreted differently among interviewees. I did not catch onto this after until after I conducted a few interviews. After collecting background information, I asked: “What is mindfulness practice?” Some interviewees interpreted the question as, “What is mindfulness?” Even though these questions are related, they are different; the term mindfulness is *what* is being done and the term practice is *how* it is being done. Nevertheless, after I picked up on this misinterpretation, I was able to clarify the question to interviewees and get more targeted responses. It may have been more effective to start with the question “What is mindfulness?” and then follow it with “What is mindfulness practice?”

Initially, I was hoping to interview four education specialists from the U of A’s Centre for Teaching and Learning; however, I was only able to recruit one due to a lack of responses and/or disinterest in participating. Interviewing only one education specialist may have led to limited findings. It might have been useful to recruit at least one more education specialist in order to compare and contrast their responses. Because of the scope of this project, at the time I decided that one education specialist was sufficient; however, interviewing more might have created additional areas for analysis and for connections to be made.

One of the design educators, Gillian Harvey, made a few comments about mindfulness practice as it relates to ideation and creativity. As previously mentioned, Harvey did have some experience with mindfulness in the classroom as I was invited to do mindfulness-related activities with her students. It might have been useful to ask all design educators if they had any experience with mindfulness or mindfulness in classroom. This would have given me some context as to how familiar they were with the practice and if they had incorporated it into their classrooms.

Design educator interviewees were all visual communication designers and VCD instructors which may have resulted in a limitation within the research findings. My initial aim was to focus on the influence of

mindfulness practice on design education as a broad discipline and therefore it may have been useful to discuss ideation with another type of design instructor, such as an industrial designer (ID). Results could have indicated similarities or differences between different types of design education, particularly design education in the U of A's Department of Art and Design. Also, interviewing industrial design instructors would have corresponded with workshop participants in that these students had experience in VCD, ID, or both because I recruited design students at the U of A by placing posters in the VCD and ID studio spaces.

#### **4.12 EXPLORATORY WORKSHOP**

One workshop participant commented that the stakes were low in the workshop because it was not a "real-life" project. This could be a limitation in that results may have differed if the activities were done within an actual design classroom setting. It was an aim of mine to create as much authenticity as possible by delivering the workshop in a way that would correspond with how I would deliver it in a classroom setting. However, student performance was not being evaluated in the thesis project workshop. The result could differ if the workshop had been done in a real-world context.

One aspect that I would change about the workshop, if I was delivering it in an actual classroom setting, would be to provide more context as to what mindfulness is, its origins, how it is practiced, and what the benefits and limitations are. I provided a brief introduction at the beginning of this workshop, but because the workshop was part of an exploratory study, I did not want to prime participants' thinking by giving too much information. My objective was to generate themes based on initial experiences with mindfulness practice in a workshop setting. That being said, it may have been useful to ask participants in the questionnaire if they had any experience with mindfulness practice prior to the workshop. Knowing this could have allowed me to create connections between their ideas and opinions about the workshop and their level of experience with mindfulness.

Understanding this would be important in order to consider whether there may have been novelty bias. Many comments from the questionnaire seemed to reflect excitement and eagerness about practicing mindfulness. However, it should be mentioned that many, if not all, participants may have never been exposed to mindfulness prior to the workshop and therefore the experience was new to them.

It is possible that novelty could affect participants' opinion about the activities they engaged in.

Another limitation of this research project was that I had to facilitate 3 separate workshops instead of one. My objective was to lead a workshop that had 10–15 participants; however, I had a difficult time recruiting participants which is why I had to go through the recruitment and delivery process three separate times. The objective of having 10–15 participants in one setting was it would more accurately simulate a design classroom. It is possible that results would have differed if the workshop had had more people in one setting.

Participants in the study were mainly recruited via poster advertisement. Therefore participants were interested or curious about participating in the study to some degree. This could be a limitation to the research project in that it is assumed that in a real-world application of mindfulness practice, students may not show the same willingness to participate. Results may have differed if the research had been done in a real classroom setting.

In the workshop 'Consent for Acknowledgement Form,' I did not ask participants if they wanted to be acknowledged for their visual explorations. This was intentional in that I did not want them to feel pressured to "perform" by creating refined explorations, knowing that their name would have been attached to their design work. However, during the analysis phase of the research, I realized that the participants' initials and/or names were still attached to the explorations because they were creating personal visual identities as logos and logotypes during the free-drawing activity. Furthermore, it might have been appropriate to ask participants whether they would have liked to be acknowledged for their designs or have them draw something other than a personal visual identity. Also on the 'Consent for Acknowledgement Form,' I asked participants whether they wanted to be identified in photographs that I took during the workshop, but I realized, during the delivery of the study, that taking pictures during meditation activities might make participants feel uncomfortable, so I did not take any pictures. If undertaking similar research in the future, I would not consider taking pictures during these types of activities.

## **4.2 Possible Future Directions**

### **Real classroom setting**

As previously mentioned, it may be useful to investigate the influence of mindfulness practices on actual design classroom settings. This project was a good starting point in exploring mindfulness with design students; however, results may differ in an authentic context where stakes are not as low.

### **Enthusiasm for mindfulness**

Because I, as the researcher and workshop facilitator of this project, am enthusiastic and passionate about mindfulness, it might be interesting to explore how enthusiasm for a specific instructional method, such as meditation, can affect students' receptivity. One of the interviewees made a comment about instructors modeling behaviour in the classroom and it is possible that integrating mindfulness in the classroom with enthusiasm would influence students' attitudes and behaviours about a topic or instructional method.

### **Testing the mindfulness framework**

One deliverable from this research project was the creation of a visual framework explaining mindfulness practice. After interviewing mindfulness practitioners and an educational specialist, I created a framework that encompassed different concepts such as mindfulness-related to attitudes, spaciousness, stillness, slowing down as well as attention, creativity, and happiness. One objective in creating this framework is that it could help explain these concepts in addition to verbal explanations and written descriptions. Educators could use the framework to understand the practice themselves as well as share it with their students. It might be useful to test the framework for clarity. For example, in order to understand if the framework communicates what it is intending to communicate, a researcher could ask instructors to do a "think-out loud" of what they believe the framework means to them. Responses could be noted by the researcher and then analyzed for themes and patterns in order to improve the visual framework.

### **Short-term and long-term experiences of mindfulness practice in design education**

As previously mentioned, the workshop aspect of this research project was exploratory which means that my aim was to receive initial feedback

on the topic of mindfulness as it related to ideation and creativity. Therefore, I was investigating a short-term application of mindfulness practice. It may be useful to investigate the influence of mindfulness practice on design education over a longer period of time. One way of doing this would be researching the integration of mindfulness practice in a design classroom over a full academic term or several academic terms.

### **Mindfulness activities and timing**

Some workshop participants expressed an interest in having more time to practice certain mindfulness-related activities. Furthermore, one participant reported that she would have been more satisfied with her visual explorations had she had more time to work on it. This consideration suggests another area for research. Research could test different amounts of time practicing certain mindfulness-related activities in order to reveal preferred amounts of time for practice. Researching this is important because it could help reveal optimal times for practice.

### **Mindfulness, happiness, creativity and attention**

A significant finding that emerged through the research project was that there is a connection between mindfulness practice, happiness, creativity and attention. Doing further research to investigate what this specific connection is might be useful because it could allow researchers explain the importance of mindfulness, especially within educational contexts.

### **Critique designs mindfully in design education**

Within design education, students are taught to critique and evaluate their creative work by looking at it closely, both visually and conceptually. These critiques happen both informally, through one-on-one discussions with peers and instructors, as well as formally as a class. It would be interesting to explore and investigate different mindful approaches to critiquing design work. Questions worth considering might be: Is it possible to critique design work with a mindfulness-related attitude of non-judgment? How can an attitude of beginner's mind influence a critique session? How might practicing mindfulness prior to a formal critique influence a class discussion about design work?

## 5. Conclusion

### 5.1 Summary of Findings

This thesis research project explored the influence of mindfulness practice on design education as it relates to ideation and creativity. The research was conducted within the context of Design Studies at the University of Alberta by way of semi-structured interviews and an exploratory workshop. This section will focus on the findings related to the relationship between ideation, creativity and mindfulness.

A common theme that emerged throughout this research project was that allowing oneself to experience stillness and space could lead to a feeling of being more mentally present, calm and focused. In turn, it is possible that being mentally present allows ideas and creativity to flow because when we slow down, allow for stillness and spaciousness to affect our experience, we are less susceptible to over-thinking and running into mental blocks while engaging in the creative process.

Another finding, which emerged from the interviews, was that certain moods, such as happiness or an absence of stress, could allow creativity to flow more readily. Additionally, there appears to be a relationship between mindfulness and happiness. The practice of mindfulness can lead to one feeling more happy. Some research literature shows connections between happiness and attention; therefore, it is possible there is a connection between mindfulness practice, happiness, creativity and attention. Further research should be done to investigate this specific connection.

Mindfulness can be cultivated using different life-enhancing attitudes such as openness, interest, curiosity, patience, compassion, curiosity, acceptance and beginner's mind. Cultivating a beginner's mind means to experience a situation, or specific point-of-focus, with a fresh perspective which can lead to new possibilities while ideating. Many of the ideation techniques currently used within design education appear to show a relationship with beginner's mind and curiosity, in addition to other attitudes. Some of these techniques include exploratory projects and workshops, altering a design, and decontextualizing and reinventing a design. Quick exercises, as a technique for generating creative ideas,

resemble the mindfulness-related attitude of non-judgment. Additional ideation techniques that relate to mindfulness practice include mind mapping, design matrices, sketching and others; however, these techniques may also utilize both thinking and sensing modes of being, making it unclear as to the extent to which they fit under the category of mindfulness practice. Further research could be done to investigate specific ideation techniques thoroughly and their link to mindfulness.

A significant finding from the workshop, based on the responses from participants (design students from the disciplines of visual communication design and/or industrial design) was that they all felt more mental clarity after the activities. Also, mindfulness practice made them feel less pressured to perform while they engaged in the creation of visual explorations. To some, this lack of pressure allowed them to gain new perspectives and explore new possibilities, which may have led to creative insights, particularly in the free-drawing activity. This exploratory process appeared to make many participants eager about the practice; however, this eagerness could be due to a novelty bias. Testing mindfulness practice over an extended period of time may be a useful avenue for future research. It was also mentioned that the stakes were low in the exploratory workshop, most likely because participants were not being evaluated, and it would be useful to explore the influence of mindfulness practice in a real-world context. Also, according to some participants, having more time to do some of the explorations, in particular the free-drawing exercise (10-minutes), could have led to more satisfying design outcomes.

## **5.2 Moving Forward**

This thesis project has inspired me to continue incorporating mindfulness practice into design classroom settings. Fortunately, I have the opportunity to do this, as I will be continuing to teach design courses at the U of A. One finding that was especially compelling to me was that design students not only enjoyed practicing mindfulness, but they wanted more time to do so. I would like to test out different mindfulness-related activities in the design classroom, including all of the ones that I incorporated into this project, while assessing how much time would be needed to do them effectively. Receiving feedback from students during one-on-one consultations could be one method for doing this. Also, because workshop participants appreciated the lack of pressure

to preform while engaging in the ideation activities, I would ensure that the visual explorations in the design classroom are not evaluated. In the past, I have asked students to include the explorations in their sketchbooks, which was evaluated at the end of the term; however, this may make students feel obligated to create refined explorations. As mentioned by the interviewee who discussed aesthetic meditations, the purpose of the practice is in the *process* and not the *product*.

As shown in this thesis project, different types of ideation techniques could be considered a form of mindfulness practice. Many of these ideation techniques were related to sensing as opposed to thinking. Allowing students to exercise their sensing abilities could help creativity flow more easily because they are not critiquing themselves throughout the process. Furthermore, there are endless possibilities as to ideation techniques that mimic mindfulness practice. It is important for designers to have a “tool kit” of different ideation techniques in order to work through creative blocks that are inevitable. I use the word inevitable because we all deal with time pressures and stress, which were noted as reason for creative blocks by the professionals interviewed.

Getting students to practice mindfulness together could help them build a sense of community in the class, which was noted by an interviewee as a benefit of integrating it into educational settings. This may help create a safe place for learning and being creative. Once students feel “safe” in the classroom, important discussions such as design-related values could be addressed. Some interviewees explained that they make an effort to connect mindfulness to course content that they are teaching and particularly to values being taught within the course. Values related to ideation, creativity and mindfulness could be emphasized in discussions and exercises within the design classroom, such as beginner’s mind, curiosity, and openness, to foster a positive environment for learning in design education in particular and education in general.



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## 7. Appendices

### 7.1 Ethics Application

#### **Application**

#### **Documents**

Exploratory workshop

- » Protocol
- » Information letter
- » Email invitation

Semi-structure interviews

- » Information letter
- » Email invitation

Recruitment poster

*\*See Appendices 7.23 for consent forms*

*\*See Appendices 7.25 for questionnaires*

Close

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There are no items to display

- 10.0 Study Team** (*Co-investigators, supervising team, other study team members*): People listed here cannot edit this application and do not receive HERO notifications:

Last Name	First Name	Organization	Role/Area of Responsibility	Phone	Email
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There are no items to display



### 1.5 Conflict of Interest

1.0

**\* Are any of the investigators or their immediate family receiving any personal remuneration (including investigator payments and recruitment incentives but excluding trainee remuneration or graduate student stipends) from the funding of this study that is not accounted for in the study budget?**

☐ Yes ☒ No

If YES, explain:

2.0

**\* Do any of investigators or their immediate family have any proprietary interests in the product under study or the outcome of the research including patents, trademarks, copyrights, and licensing agreements?**

☐ Yes ☒ No

3.0

**Is there any compensation for this study that is affected by the study outcome?**

☐ Yes ☒ No

4.0

**Do any of the investigators or their immediate family have equity interest in the sponsoring company? (This does not include Mutual Funds)**

☐ Yes ☒ No

5.0

**Do any of the investigators or their immediate family receive payments of other sorts, from this sponsor (i.e. grants, compensation in the form of equipment or supplies, retainers for ongoing consultation and honoraria)?**

☐ Yes ☒ No

6.0

**Are any of the investigators or their immediate family, members of the sponsor's Board of Directors, Scientific Advisory Panel or comparable**

body?

☐ Yes ☒ No

7.0

**Do you have any other relationship, financial or non-financial, that, if not disclosed, could be construed as a conflict of interest?**

☐ Yes ☒ No

**If YES, explain:**

### **Important**

*If you answered YES to any of the questions above, you may be contacted by the REB for more information or asked to submit a Conflict of Interest Declaration.*



## **1.6 Research Locations and Other Approval**

**1.0 \* List the locations of the proposed research, including recruitment activities. Provide name of institution or organization, town, or province as applicable**

The proposed research will take place on campus at the University of Alberta in Edmonton, Alberta. Specifically, the study will take place in the Fine Arts Building, Visual Communication Design studios.

Interviews will be conducted in the Fine Arts Building room 3-71A

**2.0 \* Indicate if the study will use or access facilities, programmes, resources, staff, students, specimens, patients or their records, at any of the sites affiliated with the following (select all that apply):**

Not applicable

**List all facilities or institutions as applicable:**

3.0

**Multi-Institution Review**

**\* 3.1 Has this study already received approval from another REB?**

☐ Yes ☒ No

4.0

**Does this study involve pandemic or similar emergency health research?**

☐ Yes ☒ No

**If YES, are you the lead investigator for this pandemic study?**

☐ Yes ☐ No

- 5.0** If this application is closely linked to research previously approved by one of the University of Alberta REBs or has already received ethics approval from an external ethics review board(s), provide the HERO study number, REB name or other identifying information. Attach any external REB application and approval letter in Section 7.1.11 – Other Documents.



## 2.1 Study Objectives and Design

- 1.0** Date that you expect to start working with human participants:  
2/3/2015
- 2.0** Date that you expect to finish working with human participants, in other words, you will no longer be in contact with the research participants, including data verification and reporting back to the group or community:  
6/3/2015
- 3.0** \* Provide a lay summary of your proposed research suitable for the general public (*restricted to 300 words*). If the PI is not affiliated with the University of Alberta, Alberta Health Services or Covenant Health, please include institutional affiliation.

Mindfulness can be understood as the skill and attention towards an immediate experience and an open orientation towards one's experience of the present moment. Most mindfulness concepts stem from eastern philosophy but have now been supported empirically by research in the west. Meditation is a technique for practicing mindfulness that can include deep breathing, walking, eating, drawing and others. All of these techniques have been known to exercise concentration and focused-awareness leading to a greater sense of mental clarity. Mental clarity could allow for a more "open mind" potentially leading to richer creative insights.

Students who enroll in design studies take studio-based classes which require them to ideate creatively in order to complete their projects. Conventional ideation techniques that are analytical—as opposed to intuitive—include mapping categories and designing matrices. I will be recruiting students who are taking at least one visual communication and/or industrial design course. As the researcher-facilitator, I would lead four mindfulness activities in a workshop and then ask the participants to create visual explorations for the design of a personal visual identity. After the activity, the participants would complete a questionnaire. This exploratory study investigates intuitive approaches to ideation in order to examine the influence of mindfulness as it relates to creativity.

I will also be conducting interviews with several mindfulness practitioners, design instructors, and educational developers in order to provide background information that can be connected to the study.

The purpose of my research is to investigate how the introduction of mindfulness influences creativity while design students ideate. The outcomes may broaden the profile of idea-generating methods that are available to design students. This is especially useful in that there is little existing research about mindfulness meditation in design education as it relates to ideation and creativity.

**4.0 \* Provide a description of your research proposal including study objectives, background, scope, methods, procedures, etc) (restricted to 1000 words). Footnotes and references are not required and best not included here. Research methods questions in Section 5 will prompt additional questions and information.**

The objective of the proposed research is to examine whether certain mindfulness practices may enhance a student's creativity while generating design concepts. The use of mindfulness meditation has been studied and implemented within educational contexts for the last decade. A large portion of this research relates to the extent to which mindfulness meditation practices ameliorate stress and anxiety. There are some studies that highlight the intersections between meditation and creativity, but these studies are not specifically targeted towards design education—which is the foundation of my thesis research.

Within the context of design education, students typically use different ideation techniques to help them generate novel and creative ideas. As part of design curriculum at University of Alberta, there are analytical techniques for generating creative ideas and some of these may include mind-mapping, design matrices generating word lists, and other mapping techniques such as flow charts. Analytical ways of generating ideas exercise certain analytical processes in the brain; however, this may limit a student's creative process. Problem-solving and analysis could lead to "cognitive rigidity" resulting in a creative block. By quieting the mind through the practice of mindfulness meditation, a student may boost his or her creative flow and cultivate a "beginner's mind"—a term linked to mindfulness which refers to experiencing a situation with a fresh perspective.

**Part One: Exploratory Study**

My aim is to recruit approximately 15 students, who are taking at least one visual communication and/or industrial design course, to participate in a workshop. Students with whom I am already acquainted will be recruited via email. Other students will be recruited by way of a recruitment poster displayed in the visual communications design and industrial design studio areas. I do not have any teaching responsibilities during the Winter 2015 term—the term in which I will be conducting my research—and therefore there will be no risk of dual relationships which could influence students' decisions to participate in the research. As the researcher-facilitator, I would lead four mindfulness activities and then ask the participants to create visual explorations for the design of a personal visual identity.

Before the activities take place on the day of the workshop, all students will be informed about the research study details, benefits, risks and details regarding confidentiality. They will then be asked to read a consent form and sign it. The students will choose whether or not they allow me—the researcher—to use their visualizations from the activities as part of my final research report and thesis exhibition. They will also sign the form in order to

notify me if the data from questionnaires and pictures from the workshop can be included as part of the research project. I will mention that those participants who would like to be acknowledged for their feedback, explorations, and/or the pictures taken of them will need to sign the consent for acknowledgement form.

I will lead the students through four meditations including a breathing meditation, blind contour drawing meditation, art-making meditation, and doodling meditation. The concept behind the first two meditations is that they will help “quiet” the students minds through focused-awareness and concentration. After these two meditations are complete, the students will be asked to contemplate a concept for the design of a personal visual identity and create visual explorations—which will be done as part of the last two meditations. After the students complete the activities, they will be instructed to fill out a questionnaire as part of my method for collecting data. The visual explorations, questionnaires, and images taken during workshop will be part of my practice-led research process.

### **Part Two: Interviews**

I will be conducting semi-structured interviews. The interviews will be with mindfulness researchers-practitioners, design instructors, and staff members from the UofA's Centre of Teaching and Learning (e.g. Educational Developers). This will provide background information for my thesis report and exhibition. The interviews will be held in the Fine Arts Building Room 3-71A and they will be audio recorded. Each individual will be sent an email invitation. If they agree to be interviewed, I will send them semi-structured questions to reflect on prior to the in-person interview. Participants will be notified about the research details and asked to sign a consent form before the semi-structured interview begins. Also, the interviews will be audio recorded so that I can glean information from the conversations which will help me in the data analysis phase of the research project.

- 5.0 Describe procedures, treatment, or activities that are above or in addition to standard practices in this study area (eg. extra medical or health-related procedures, curriculum enhancements, extra follow-up, etc):**
- 6.0 If the proposed research is above minimal risk and is not funded via a competitive peer review grant or industry-sponsored clinical trial, the REB will require evidence of scientific review. Provide information about the review process and its results if appropriate.**
- 7.0 For clinical research only, describe any sub-studies associated with this application.**



## **3.1 Risk Assessment**

- 1.0 \* Provide your assessment of the risks that may be associated with this research:**  
Minimal Risk - research in which the probability and magnitude of possible harms implied by participation is no greater than those encountered by

participants in those aspects of their everyday life that relate to the research (TCPS2)

## 2.0 \* Select all that might apply:

### Description of Potential Physical Risks and Discomforts

- No Participants might feel physical fatigue, e.g. sleep deprivation
- No Participants might feel physical stress, e.g. cardiovascular stress tests
- No Participants might sustain injury, infection, and intervention side-effects or complications
- No The physical risks will be greater than those encountered by the participants in everyday life

### Potential Psychological, Emotional, Social and Other Risks and Discomforts

- No Participants might feel psychologically or emotionally stressed, demeaned, embarrassed, worried, anxious, scared or distressed, e.g. description of painful or traumatic events
- Possibly Participants might feel psychological or mental fatigue, e.g. intense concentration required
- No Participants might experience cultural or social risk, e.g. loss of privacy or status or damage to reputation
- No Participants might be exposed to economic or legal risk, for instance non-anonymized workplace surveys
- No The risks will be greater than those encountered by the participants in everyday life

## 3.0 \* Provide details of the risks and discomforts associated with the research, for instance, health cognitive or emotional factors, socio-economic status or physiological or health conditions:

There are minimal risks involved in the proposed research study and interviews. Participants in the study will be encouraged to brainstorm creative ideas and there should be no more risks or discomfort endured. The kind of work students will be doing is no different from what they would do in a typical design studio class.

## 4.0 \* Describe how you will manage and minimize risks and discomforts, as well as mitigate harm:

- respecting the dignity of all participants and what is being asked of them
- ensure informed consent
- carefully describing the research study to the participants while outlining the risks and benefits of being involved and how the data will be used and disseminated
- allowing participants to withdraw at any time during the research study

## 5.0 \* If your study has the potential to identify individuals that are upset, distressed, or disturbed, or individuals warranting medical attention, describe the arrangements made to try to assist these individuals.



**Explain if no arrangements have been made:**

There is little to no chance that participants will be upset, distressed, or disturbed because of the study or interview.



### 3.2 Benefits Analysis

**1.0 \* Describe any potential benefits of the proposed research to the participants. If there are no benefits, state this explicitly:**

Participants in the exploratory study may benefit by engaging in creative brainstorming that could potentially add value to their own design work. Furthermore, participants may reflect on their own practice and potentially integrate new ideation into their design practice.

Interviewees may benefit by reflecting on questions that relate to their own practices which may lead to new insights.

**2.0 \* Describe the scientific and/or scholarly benefits of the proposed research:**

The research outcomes could lead to the dissemination of information about the influences of mindfulness practice as it applies to design education.

**3.0 Benefits/Risks Analysis: Describe the relationship of benefits to risk of participation in the research:**



### 4.1 Participant Information

**1.0 \* Who are you studying? Describe the population that will be included in this study.**

Part One: Exploratory Study

- 15 participants who are taking a visual communication design and/or industrial design course at the University of Alberta

Part Two: Interviews

- 9 mindfulness researcher-practitioners
- 5 design instructors
- 4 staff members of the UofA's Centre for Teaching and Learning

Total proposed number of participants: 33

**2.0 \* Describe the inclusion criteria for participants (e.g. age range, health status, gender, etc.). Justify the inclusion criteria (e.g. safety, uniformity, research methodology, statistical requirement, etc)**

There will be both male and female participants in the study. The participants may also come from a variety of cultural and socioeconomic backgrounds.

Interviewees will be a mix of practitioners-researchers, design instructors,

and educational developers from different departments on the University of Alberta campus (e.g. secondary education, educational psychology, political science, public health, theology, etc.). I will be interviewing males and females ranging in ages from 20 to 50.

### 3.0 Describe and justify the exclusion criteria for participants:

#### 4.0

**\* Will you be interacting with human subjects, will there be direct contact with human participants, for this study?**

☒ Yes ☐ No

*Note: No means no direct contact with participants, chart reviews, secondary data, interaction, etc.*

**If NO, is this project a chart review or is a chart review part of this research project?**

☐ Yes ☐ No

#### 5.0

##### Participants

**How many participants do you hope to recruit (including controls, if applicable)**

33

**Of these how many are controls, if applicable (Possible answer: Half, Random, Unknown, or an estimate in numbers, etc).**

**If this is a multi-site study, for instance a clinical trial, how many participants (including controls, if applicable) are expected to be enrolled by all investigators at all sites in the entire study?**

### 6.0 Justification for sample size:

### 7.0 Does the research specifically target aboriginal groups or communities?

☐ Yes ☒ No



## 4.3 Recruit Potential Participants

#### 1.0

##### Recruitment

**\* 1.1 Describe how you will identify potential participants (please be specific as to how you will find potentially eligible participants i.e. will you be screening AHS paper or electronic records, will you be looking at e-clinician, will you be asking staff from a particular area to let you know when a patient fits criteria, will you be sitting in the emergency department waiting room, etc.)**

**Part One: Exploratory Study**

I will be sending out an email to various students who are enrolled in a visual communication design and/or industrial design course at the University of Alberta. The email will only be sent out to those students who I am already acquainted with. I will also create and post a poster to advertise the research study which will outline the eligibility, date, and location. It will be posted in the visual communication design and industrial design studios.

I may ask the instructors who teach DES 394: Foundations of Visual Communication Design and DES 494: Concepts and Systems in Visual Communication Design if I can inform their students about my research activity. It will be noted that participation is completely voluntary and because the activity is outside of class time, the instructors will not know who participated in my research study. I have no connection with teaching or evaluation for any of courses in the department because I do not have any teaching responsibilities during the Winter 2015 term—the term in which I will be conducting my research. Therefore there will be no risk of dual relationships which could influence students' decisions to participate in the research.

**Part Two: Interviews**

I will send out an email notifying the practitioners about the research project which will outline the objective, non-obligation/voluntary, confidentiality of data, risk and benefits as well as how the findings will be used and shared. Because I am acquainted with or have worked with all of the interviewees, I will send them an email using the address that I have on file.

The emails will be formatted so that they do not disclose other participants email addresses and names. It will also be sent a few weeks in advance so that potential participants have time to decided whether or not they wish to participate.

**1.2 Once you have identified a list of potentially eligible participants, indicate how the potential participants' names will be passed on to the researchers AND how will the potential participants be approached about the research.**

**1.3 How will people obtain details about the research in order to make a decision about participating? Select all that apply:**

Potential participants will contact researchers  
 Researchers will contact potential participants

**1.4 If appropriate, provide the locations where recruitment will occur (e.g schools, shopping malls, clinics, etc.)**

**2.0****Pre-Existing Relationships**

**2.1 Will potential participants be recruited through pre-existing relationships with researchers (e.g. Will an instructor recruit students from his classes, or a physician recruit patients from her practice? Other examples may be employees, acquaintances, own children or family members, etc)?**

☒ Yes ☐ No

**2.2 If YES, identify the relationship between the researchers and participants that could compromise the freedom to decline (e.g. professor-student). How will you ensure that there is no undue pressure on the potential participants to agree to the study?**

Part One: Exploratory Study

Some of the participants in the case study may be students from a previous class in which I was the Teaching Assistant (in 2013 and 2014). The participants will be notified that the mindfulness meditation activities are non-obligation and they are able to withdraw at any time during the research study.

I have no connection with teaching or evaluation for any of courses in the department because I do not have any teaching responsibilities during the Winter 2015 term—the term in which I will be conducting my research. Therefore there will be no risk of dual relationships which could influence students' decisions to participate in the research.

I will explain about the confidentiality of data in the research study. An information letter containing this information will also be given to each participant. Participants will be asked to sign a consent form which also outlines procedures.

Part Two: Interviews

I am acquainted with or have worked with all of the participants who I am interviewing. Interviewees will also be given an information letter and verbal explanation of confidentiality prior to the interview. They will also be asked to sign consent forms. Interviews will be one-on-one.

**3.0 Outline any other means by which participants could be identified, should additional participants be needed (e.g. response to advertising such as flyers, posters, ads in newspapers, websites, email, listservs; pre-existing records or existing registries; physician or community organization referrals; longitudinal study, etc)**

**4.0 Will your study involve any of the following (select all that apply)?**  
None of the above



#### 4.5 Informed Consent Determination

**1.0**

**\* Describe who will provide informed consent for this study (select all that apply). Additional information on the informed consent process is available at: <http://www.pre.ethics.gc.ca/eng/policy-politique/initiatives/tcps2-eptc2/chapter3-chapitre3/#toc03-intro>**

All participants have capacity to give free and informed consent

**Provide justification for requesting a Waiver of Consent (Minimal risk only, additional guidance available at: <http://www.pre.ethics.gc.ca/eng/policy-politique/initiatives/tcps2-eptc2/chapter3-chapitre3/#toc03-1b>**

2.0

**How is participant consent to be indicated and documented? Select all that apply:**

Signed consent form

**Except for “Signed consent form” use only, explain how the study information will be communicated and participant consent will be documented. Provide details for EACH of the option selected above:**

3.0

**Authorized Representative, Third Party Consent, Assent**

**3.1 Explain why participants lack capacity to give informed consent (e.g. age, mental or physical condition, etc.).**

**3.2 Will participants who lack capacity to give full informed consent be asked to give assent?**

☐ Yes ☐ No

**Provide details. IF applicable, attach a copy of assent form(s) in the Documentation section.**

**3.3 In cases where participants (re)gain capacity to give informed consent during the study, how will they be asked to provide consent on their own behalf?**

4.0

**What assistance will be provided to participants, or those consenting on their behalf, who have special needs? (E.g. non-English speakers, visually impaired, etc):**

5.0

**\* If at any time a participant wishes to withdraw, end, or modify their participation in the research or certain aspects of the research, describe how their participation would be ended or changed.**

Participants may withdraw from the research activity at any time during the case study or interview.

6.0

**Describe the circumstances and limitations of data withdrawal from the study, including the last point at which it can be done:**

The last point of data withdrawal will be one month after the research activity has been conducted. This will be outlined in the consent form and information sheet.

7.0

**Will this study involve any group(s) where non-participants are present? For example, classroom research might involve groups which include participants and non-participants.**

☐ Yes ☐ No

## 5.1 Research Methods and Procedures

*Some research methods prompt specific ethic issues. The methods listed below have additional questions associated with them in this application. If your research does not involve any of the methods listed below, ensure that your proposed research is adequately described in Section 2.0: Study Objectives and Design or attach documents in Section 7.0 if necessary.*

- 1.0**    **\* This study will involve the following (select all that apply)**  
*The list only includes categories that trigger additional page(s) for an online application. For any other methods or procedures, please indicate and describe in your research proposal in the Study Summary, or provide in an attachment:*  
 Interviews (eg. in-person, telephone, email, chat rooms, etc)  
 Surveys and Questionnaires (including internet surveys)
- 2.0**    **\* Is this study a Clinical trial? (Any investigation involving participants that evaluates the effects of one or more health-related interventions on health outcomes?)**  
☐ Yes ☒ No
- 3.0**    **If you are using any tests in this study diagnostically, indicate the member(s) of the study team who will administer the measures/instruments:**  
 Test Name   Test Administrator   Organization   Administrator's Qualification  
 There are no items to display
- 4.0**    **If any test results could be interpreted diagnostically, how will these be reported back to the participants?**

## 5.7 Interviews, Focus Groups, Surveys and Questionnaires

- 1.0**    **Are any of the questions potentially of a sensitive nature?**  
☐ Yes ☒ No  
**If YES, provide details:**
- 2.0**    **If any data were released, could it reasonably place participants at risk of criminal or civil law suits?**  
☐ Yes ☒ No  
**If YES, provide the justification for including such information in the study:**
- 3.0**

**Will you be using audio/video recording equipment and/or other capture of sound or images for the study?**

☒ Yes ☐ No

**If YES, provide details:**

Audio recording will be used for interviews. Images may be taken during the mindfulness meditation activities as documentation of the practice-led research process. Images will only be used if consent is given by participants. Names will not be attached to images.



## 6.1 Data Collection

**1.0 \* Will the researcher or study team be able to identify any of the participants at any stage of the study?**

☒ Yes ☐ No

**2.0**

**Will participants be recruited or their data be collected from Alberta Health Services or Covenant Health or data custodian as defined in the Alberta Health Information Act?**

☐ Yes ☒ No

**Important:** Research involving health information must be reviewed by the Health Research Ethics Board.

**3.0**

**Primary/raw data collected will be (check all that apply):**

**Directly identifying information** - the information identifies a specific individual through direct identifiers (e.g. name, social insurance number, personal health number, etc.)

**Indirectly identifying information** - the information can reasonably be expected to identify an individual through a combination of indirect identifiers (eg date of birth, place of residence, photo or unique personal characteristics, etc)

**Made Public and cited** (including cases where participants have elected to be identified and/or allowed use of images, photos, etc.)

**4.0**

**If this study involves secondary use of data, list all original sources:**

**5.0**

**In research where total anonymity and confidentiality is sought but cannot be guaranteed (eg. where participants talk in a group) how will confidentiality be achieved?**

Questionnaires, images, and visual explorations will remain anonymous unless the participant would like to be acknowledged for his or her work. In this case, the participant will have to fill out and sign a consent for acknowledgement form.

Interviewed participants will be asked on the consent forms whether or not they would like their name to be used as part of my thesis report and/or exhibition. This will give them the opportunity to have their opinions cited

and connected to their name to preserve intellectual property if they consent to do so.



## 6.2 Data Identifiers

1.0

**\* Personal Identifiers:** will you be collecting - at any time during the study, including recruitment - any of the following (*check all that apply*):

Surname and First Name

**If OTHER, please describe:**

2.0

**Will you be collecting - at any time of the study, including recruitment of participants - any of the following (*check all that apply*):**

There are no items to display

**If OTHER, please describe:**

3.0

**\* If you are collecting any of the above, provide a comprehensive rationale to explain why it is necessary to collect this information:**

Questionnaires, images, and visual explorations will remain anonymous unless the participant would like to be acknowledged for his or her work. In this case, the participant will have to fill out and sign a consent for acknowledgement form.

Interviewed participants will be asked on the consent forms whether or not they would like their name to be used as part of my thesis report and/or exhibition. This will give them the opportunity to have their opinions cited and connected to their name to preserve intellectual property if they consent to do so.

4.0

**If identifying information will be removed at some point, when and how will this be done?**

5.0

**\* Specify what identifiable information will be **RETAINED** once data collection is complete, and explain why retention is necessary. Include the retention of master lists that link participant identifiers with de-identified data:**

Participants who wish to have their name attached to their opinions will be cited as part of my thesis report and/or exhibition. Therefore, the information will be retained in the thesis report.

6.0

**If applicable, describe your plans to link the data in this study with data associated with other studies (e.g. within a data repository) or with data belonging to another organization:**





## 6.3 Data Confidentiality and Privacy

- 1.0 \* How will confidentiality of the data be maintained? Describe how the identity of participants will be protected both during and after research.**

Confidentiality will be discussed at the beginning of the exploratory study as well as in the information letter given to the participants. Students will be notified that their names will not be collected and/or connected to any of the visual explorations they create and feedback they provide unless they would like to be acknowledged. In this case, they would have to fill out and sign a consent for acknowledgement form.

Confidentiality in the interviews will be verbally explained before the interview begins and it will also be noted in the information letter given to the participants.

- 2.0 How will the principal investigator ensure that all study personnel are aware of their responsibilities concerning participants' privacy and the confidentiality of their information?**

- 3.0 External Data Access**

**\* 3.1 Will identifiable data be transferred or made available to persons or agencies outside the research team?**

☐ Yes ☒ No

**3.2 If YES, describe in detail what identifiable information will be released, to whom, why they need access, and under what conditions? What safeguards will be used to protect the identity of subjects and the privacy of their data.**

**3.3 Provide details if identifiable data will be leaving the institution, province, or country (eg. member of research team is located in another institution or country, etc.)**



## 6.4 Data Storage, Retention, and Disposal

- 1.0 \* Describe how research data will be stored, e.g. digital files, hard copies, audio recordings, other. Specify the physical location and how it will be secured to protect confidentiality and privacy. (For example, study documents must be kept in a locked filing cabinet and computer files are encrypted, etc. Write N/A if not applicable to your research)**

Visual and written data will be collected, documented and stored on an external hard-drive, with password protected encryption, and stored in a locked filing cabinet. The locked filing cabinet will remain in my home office.

- 2.0** \* University policy requires that you keep your data for a minimum of 5 years following completion of the study but there is no limit on data retention. Specify any plans for future use of the data. If the data will become part of a data repository or if this study involves the creation of a research database or registry for future research use, please provide details. (Write N/A if not applicable to your research)

Data will be used for the Master of Design thesis report, exhibition and in research papers. It will be destroyed after 5 years following completion of study.

- 3.0** If you plan to destroy your data, describe when and how this will be done? Indicate your plans for the destruction of the identifiers at the earliest opportunity consistent with the conduct of the research and/or clinical needs:



## 7.1 Documentation

Add documents in this section according to the headers. Use Item 11.0 "Other Documents" for any material not specifically mentioned below.

Sample templates are available in the REMO Home Page in the **Forms and Templates**, or by clicking [HERE](#).

### 1.0 Recruitment Materials:

Document Name	Version	Date	Description
<a href="#">MDes Study_Recruitment Poster_Justin Pritchard.pdf</a>   History	0.01	1/5/2015 4:28 PM	
<a href="#">MDes Study and Interviews_Email Invitations_Justin Pritchard.pdf</a>   History	0.01	1/5/2015 4:29 PM	

### 2.0 Letter of Initial Contact:

Document Name	Version	Date	Description
<a href="#">MDes Study_Info Letter_Justin Pritchard.pdf</a>   History	0.01	1/5/2015 4:31 PM	
<a href="#">MDes Interviews_Info Letter_Justin Pritchard.pdf</a>   History	0.01	1/5/2015 4:32 PM	

### 3.0

#### Informed Consent / Information Document(s):

#### 3.1 What is the reading level of the Informed Consent Form(s):

#### 3.2 Informed Consent Form(s)/Information Document(s):

Document Name	Version	Date	Description
<a href="#">MDes Study_Consent Form_Justin Pritchard.pdf</a>   History	0.01	1/5/2015 4:29 PM	
<a href="#">MDes Interviews_Consent Form_Justin Pritchard.pdf</a>   History	0.01	1/5/2015 4:30 PM	

[MDes Study and Interviews\\_Consent for Acknowledgement Forms\\_Justin Pritchard.pdf](#) | [History](#)

0.01	1/5/2015 4:33 PM
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**4.0 Assent Forms:**

Document Name	Version	Date	Description
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There are no items to display

**5.0 Questionnaires, Cover Letters, Surveys, Tests, Interview Scripts, etc.:**

Document Name	Version	Date	Description
<a href="#">MDes Study_Questionnaire_Justin Pritchard.pdf</a>   <a href="#">History</a>	0.01	1/5/2015 4:30 PM	
<a href="#">MDes Interviews_Questions_Justin Pritchard.pdf</a>   <a href="#">History</a>	0.01	1/5/2015 4:34 PM	

**6.0 Protocol:**

Document Name	Version	Date	Description
<a href="#">MDes Study_Protocol_Justin Pritchard.pdf</a>   <a href="#">History</a>	0.01	1/5/2015 4:31 PM	

**7.0 Investigator Brochures/Product Monographs (Clinical Applications only):**

Document Name	Version	Date	Description
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There are no items to display

**8.0 Health Canada No Objection Letter (NOL):**

Document Name	Version	Date	Description
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There are no items to display

**9.0 Confidentiality Agreement:**

Document Name	Version	Date	Description
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There are no items to display

**10.0 Conflict of Interest:**

Document Name	Version	Date	Description
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There are no items to display

**11.0 Other Documents:**

*For example, Study Budget, Course Outline, or other documents not mentioned above*

Document Name	Version	Date	Description
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There are no items to display

**Final Page**

You have completed your ethics application! Please select "Exit" to go to your study workspace.

**This action will NOT SUBMIT the application for review.**

**Only the Study Investigator** can submit an application to the REB by selecting the "SUBMIT STUDY" button in My Activities for this Study ID: Pro00044834.

You may track the ongoing status of this application via the study workspace.

Please contact the REB Coordinator with any questions or concerns.

## Protocol

### Exploratory Study

**Study Title:** Ideation, Creativity, and Mindfulness: Investigating the Influence of Mindfulness Practice in Design Education

**Principal Investigator:** Justin Pritchard, University of Alberta, [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), (780) 862-9357

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Before the activities take place on the day of the workshop, all students will be informed about the research study details, benefits, risks and details regarding confidentiality. They will then be asked to read a consent form and sign it. The students will choose whether or not they allow me—the researcher—to use their visualizations from the activities as part of my final research report and thesis exhibition. They will also sign the form in order to notify me if the data from questionnaires and pictures from the workshop can be included as part of the research project. I will mention that those participants who would like to be acknowledged for their feedback, explorations, and/or the pictures taken of them will need to sign the consent for acknowledgement form.

I will lead the students through four meditations including a breathing meditation, blind contour drawing meditation, art-making meditation, and doodling meditation. The concept behind the first two meditations is that they will help “quiet” the students’ minds through focused-awareness and concentration. After these two meditations are complete, the students will be instructed to contemplate a concept for the design of a personal visual identity and create visual explorations—which will be done as part of the last two meditations. After the students complete the activities, they will be instructed to fill out a questionnaire as part of my method for collecting data. The visual explorations, questionnaires, and images taken during workshop will be part of my practice-led research process.

## **INFORMATION LETTER**

### **Exploratory Study**

#### **Study Title:**

Ideation, Creativity, and Mindfulness: Investigating the Influence of Mindfulness Practice in Design Education

#### **Research Investigator:**

Justin Pritchard  
116 St. and 85 Ave.  
University of Alberta  
Edmonton, AB, T6G 2R3  
jpritch@ualberta.ca  
780-862-9357

#### **Supervisor:**

Susan Colberg  
Dept. of Art & Design  
3-98 Fine Arts Bldg.  
University of Alberta  
Edmonton, AB, T6G 2C9  
scolberg@ualberta.ca  
780-492-7859

#### Background

- You are being asked to participate in this study because your experience in and understanding of the activities that will help me understand the influence of mindfulness practice in design education
- The results of this study will be used in support of my Master's thesis report and exhibition, and other related papers and presentations
- Research participants include students who are enrolled in one or more visual communication design and/or industrial design courses at the University of Alberta

#### Purpose

- The proposed research aims to identify potential frameworks for introducing mindfulness practice into design curriculum
- The research outcomes could lead to the dissemination of information about the influence of mindfulness on ideation and creativity

#### Study Procedures

You are being asked to participate in a workshop that includes a breathing meditation, blind-contour drawing meditation, art-marking meditation, and doodling meditation. As part of the activities, you—along with all the other participants—will be asked to brainstorm and explore concepts for the design of a personal visual identity. Each activity will be approximately 10 minutes in duration and completed individually within a group setting.

Data will be collected by way of a questionnaire as well as visual explorations that are created. Photos may also be taken during the study. Only those who give consent at the beginning of the study will have their feedback, explorations, and/or pictures used in the final thesis report and exhibition. Names will not be attached to any of the data that is collected unless consent has been given.

#### Benefits

- Adding to the existing body of knowledge in design education
- Identifying a potential framework that may introduce mindfulness practice in design curriculum
- Understanding whether mindfulness practices effect ideation and creativity in design education

### Risk

- The risk to participants is minimal and no greater than what may be expected during a regular classroom activity

### Voluntary Participation

- You are under no obligation to participate in this study
- Participation in this research is completely voluntary and has no penalty or gain attached to it
- Even if you agree to be in the study, you can change your mind and withdraw from the research activity at any time without consequence
- You can choose to withdraw data 1-month after the research activity

### Confidentiality & Anonymity

- Collected data may be shown in my Master's thesis report and exhibition, public presentations and in written articles
- You will not be identified by name in the exhibition and report, public presentations and in written articles unless you choose to be acknowledged
- If it is necessary to quote you, a pseudonym will be used
- If you choose to be acknowledged for your participation in this research, you may fill out a Consent for Acknowledgement form that I will provide
- Data will be kept in a secure place for 5 years following the completion of my research project
- Electronic data will be password-protected and devices will be encrypted
- Data will be destroyed after 5 years
- Anonymity cannot be guaranteed within a group setting; however, I will emphasize confidentiality at each phase of the research
- The data for all uses will be handled in compliance with the UofA standards

### Further Information

- If you have any further questions regarding this study, please do not hesitate to contact me, Justin Pritchard at [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), or my graduate supervisor Susan Colberg at [scolberg@ualberta.ca](mailto:scolberg@ualberta.ca)
- The Research Ethics Board at the University of Alberta has reviewed the research plan, for its adherence to ethical guidelines. For questions regarding participants' rights and ethical conduct of research, contact the Research Ethics Office at (780) 492-2615. This office has no direct involvement with this project

**EMAIL INVITATION**  
**Exploratory Study / Design Students**

**Study Title:** Ideation, Creativity, and Mindfulness: Investigating the Influence of Mindfulness Practice in Design Education

**Principal Investigator:** Justin Pritchard, University of Alberta, [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), (780) 862-9357

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Hello,

As you know, I am a Master of Design student at the University of Alberta and I am working on a thesis which investigates the influence of mindfulness practice in design education.

I am contacting you—along with other design students at the UofA who I know—and letting them know about a workshop that I am facilitating on January 20<sup>th</sup>, 2015 at 5:00pm in the VCD common area. The workshop is part of an exploratory study that I am doing for my thesis report and exhibition and it is completely voluntary to participate. In the workshop I will be leading various mindfulness practices and asking you to create visual explorations for the design of a personal visual identity. The workshop should take no longer than 1-hour.

I have attached an information letter and poster to this email. I would be more than happy to answer any questions you might have about my research and/or the workshop.

Kind regards,  
Justin Pritchard



## **INFORMATION LETTER**

### **Semi-Structured Interviews**

#### **Study Title:**

Ideation, Creativity, and Mindfulness: Investigating the Influence of Mindfulness Practice  
on Design Education

#### **Research Investigator:**

Justin Pritchard  
116 St. and 85 Ave.  
University of Alberta  
Edmonton, AB, T6G 2R3  
jpritcha@ualberta.ca  
780-862-9357

#### **Supervisor:**

Susan Colberg  
Dept. of Art & Design  
3-98 Fine Arts Bldg.  
University of Alberta  
Edmonton, AB, T6G 2C9  
scolberg@ualberta.ca  
780-492-7859

#### Background

- You are being asked to participate in this interview because your experience in and understanding of mindfulness, ideation, and creativity will help me understand the influence of mindfulness practice on design education
- The results of this interview will be used in support of my Master's thesis report and exhibition, and other related papers and presentations
- Research participants who are being interviewed include mindfulness researcher-practitioners design educators, and educational developers

#### Purpose

- The proposed research aims to identify potential frameworks for introducing mindfulness practice into design curriculum
- The research outcomes could lead to the dissemination of information about the influence of mindfulness on ideation and creativity

#### Study Procedures

You are being asked to participate in a semi-structured interview concerning the topics of mindfulness, creativity, and ideation. The duration of the interview will be approximately 30 minutes and you are free to leave at any time during the discussion. You may request that your comments be withdrawn from the research 1-month after the interview. Please note that audio recording in the semi-structured interview will only be used to collect and analyze data, and I will not use the recording for the Master's thesis exhibition and/or other presentations.

#### Benefits

- Adding to the existing body of knowledge in design education
- Identifying a potential framework that may introduce mindfulness practice in design curriculum
- Understanding whether mindfulness practices effect ideation and creativity in design education

### Risk

- The risk to participants is minimal and no greater than what may be expected during a regular group activity

### Voluntary Participation

- You are under no obligation to participate in this interview
- Participation in this research is completely voluntary and has no penalty or gain attached to it
- Even if you agree to be in the study, you can change your mind and withdraw from the research activity at any time without consequence
- You can choose to withdraw data until up to 1-month after the research activity

### Confidentiality & Anonymity

- Collected data may be shown in my Master's thesis report and exhibition, public presentations and in written articles
- You will not be identified by name in the exhibition or report, public presentations and in written articles
- If it is necessary to quote you, a pseudonym will be used
- If you choose to be acknowledged for your participation in this research, you may fill out a Consent for Acknowledgement form that will be provided to you
- Data will be kept in a secure place for 5 years following the completion of my research project
- Electronic data will be password-protected and devices will be encrypted
- Data will be destroyed after 5 years
- The data for all uses will be handled in compliance with the UofA standards

If you would like a copy of my final thesis report, please contact me at [jpritch@ualberta.ca](mailto:jpritch@ualberta.ca)

### Further Information

- If you have any further questions regarding this study, please do not hesitate to contact me, Justin Pritchard at [jpritch@ualberta.ca](mailto:jpritch@ualberta.ca), or my graduate supervisor Susan Colberg at [scolberg@ualberta.ca](mailto:scolberg@ualberta.ca)
- The Research Ethics Board at the University of Alberta has reviewed the research plan, for its adherence to ethical guidelines. For questions regarding participants' rights and ethical conduct of research, contact the Research Ethics Office at (780) 492-2615. This office has no direct involvement with this project

**EMAIL INVITATION**  
**Semi-Structured Interviews / Mindfulness Researchers-Practitioners**

**Study Title:** Ideation, Creativity, and Mindfulness: Investigating the Influence of Mindfulness Practice in Design Education

**Principal Investigator:** Justin Pritchard, University of Alberta, [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), (780) 862-9357

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Hello,

My name is Justin Pritchard and I am a Master of Design student at the University of Alberta. I am working on a thesis project which investigates the influence of mindfulness practice on design education.

I am contacting mindfulness researchers and/or practitioners around Edmonton with the goal of setting up semi-structured interviews that could be used as background information for my thesis project. Furthermore, I am sending you an email to ask if you would be willing to talk with me for about 30 minutes at the University of Alberta and discuss questions that I have prepared related to mindfulness practice.

I have attached an information letter to this email. I would be more than happy to answer any questions you might have about my research and/or the interview. I hope to hear back from you and please let me know if you are willing to participate in the interview.

Thank you for your time and consideration.

Kind regards,

Justin Pritchard

**EMAIL INVITATION**  
**Semi-Structured Interviews / Design Educators**

**Study Title:** Ideation, Creativity, and Mindfulness: Investigating the Influence of Mindfulness Practice in Design Education

**Principal Investigator:** Justin Pritchard, University of Alberta, [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), (780) 862-9357

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Hello,

My name is Justin Pritchard and I am a Master of Design student at the University of Alberta. I am working on a thesis project which investigates different ideation practices within design education.

I am contacting design instructors at the University of Alberta with the goal of setting up semi-structured interviews that could be used as background information for my thesis project. Furthermore, I am sending you an email to ask if you would be willing to talk with me for about 30 minutes at the University of Alberta and discuss questions that I have prepared related to ideation, education, and creativity.

I have attached an information letter to this email. I would be more than happy to answer any questions you might have about my research and/or the interview. I hope to hear back from you and please let me know if you are willing to participate in the interview.

Thank you for your time and consideration.

Kind regards,

Justin Pritchard

**EMAIL INVITATION**  
**Semi-Structured Interviews / Educational Developers**

**Study Title:** Ideation, Creativity, and Mindfulness: Investigating the Influence of Mindfulness Practice in Design Education

**Principal Investigator:** Justin Pritchard, University of Alberta, [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), (780) 862-9357

---

Hello,

My name is Justin Pritchard and I am a Master of Design student at the University of Alberta. I am working on a thesis project which investigates the influence of mindfulness practice on design education as it relates to creativity.

I am contacting educational developers at the University of Alberta with the goal of setting up semi-structured interviews that could be used as background information for my thesis project. Furthermore, I am sending you an email to ask if you would be willing to talk with me for about 30 minutes at the University of Alberta and discuss questions that I have prepared related to pedagogy, mindfulness, and creativity within education.

I have attached an information letter to this email. I would be more than happy to answer any questions you might have about my research and/or the interview. I hope to hear back from you and please let me know if you are willing to participate in the interview.

Thank you for your time and consideration.

Kind regards,

Justin Pritchard

# Mindfulness + Ideation

**Thursday, March 26th**

VCD Classroom 2-38A

5:00 to 6:15pm

**Attention UofA  
design students:**

**Is your mind full?**

Take part in this MDes research study where you will learn how to practice mindfulness and ideation techniques in this short workshop. You will create visual explorations for a personal visual identity.

For more info, contact:

Justin Pritchard  
[jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca)

## 7.2 Data Collection

### 7.21 INTERVIEW DATA BY INTERVIEWEE

*Michelle Johnston*

#### **What is your definition of “mindfulness practice”?**

Mindfulness practice is about paying attention to the present moment; easing and relaxing into what is now. It is also about getting out of your own way in terms of over-thinking and worrying.

#### **How would someone practice mindfulness?**

I think of mindfulness as an energy that we can connect to, so there are many ways to tap into this. Certain activities that lend to being razor focused, very aware, letting go and being in the moment such as rock climbing.

With the busyness and complexity of our lives, sitting practice is invaluable. It is something that is accessible to everyone.

#### **How might mindfulness practice be incorporating into a classroom setting? If you have experience with mindfulness in the classroom, how did you incorporate it?**

I formally introduced mindfulness to students in 2011 in a leadership class and I felt like it was a good fit. It might be useful to incorporate it in a way that connects to something that the students are learning.

I did not call it meditation but practicing mindfulness...I think that there is a connotation with meditation and there are so many forms of meditation, such as clearing the mind and mantra's, but mindfulness is about being with whatever arises.

One way to share mindfulness with students is to connect it with a value under the umbrella of social emotional learning (e.g. good friends, being kind). This is a way for it to be sustainable and answers the “why are we doing this.”

#### **Why might mindfulness be important within the classroom?**

In our culture, we emphasize being excellent, excelling or standing out instead of being part of a community—learning to get along and understand ourselves and one another. Mindfulness builds community.

**If any, what is relationship between mindfulness and creativity?**

**Ideas can come from other ideas but sometimes they just bubble up.**

There was an interview with Paul McCartney who said the song just flows. It is about flow which is about being in the moment and letting yourself be carried by and trust in the moment. I really connect with this idea and there needs to be stillness and space.

*Undisclosed Mindfulness Practitioner*

**What is your definition of “mindfulness practice”?**

Mindfulness practice is a practice of awareness, of what is going on in the current moment, whether that it is internally or externally or both, without judgment.

**How might someone practice mindfulness?**

In my experience, there is formal and informal practice. Formal sitting meditation is where one focuses on the breath or body or sounds to anchor them to the present moment. Informal practice is about the awareness of what is currently happening inside and out and one goes about one's day.

There are always opportunities for one to be mindful...it can be used anywhere at anytime.

**How might mindfulness practice be incorporating into a classroom setting? If you have experience with mindfulness in the classroom, how did you incorporate it?**

I have invited the students to focus on their breath and in doing so they are able to learn about emotional regulation by simply regulating their breath.

By slowing down, and trying to cultivate awareness of ones surroundings and also body awareness. Becoming mindful of what is going on in he body...can give you signals of how you are doing emotionally.

When students become more mindful of what is going on inside themselves, they can start to develop more compassion and empathy toward their fellow students.



**Why might mindfulness be important within the classroom?**

In the classroom, mindfulness is an amazing opportunity for students to learn greater self-awareness and develop compassion, empathy and heartfulness.

Most beneficial circumstance is for teachers to have their own practice. Students will pick up on if their teacher is actually mindful or if they are just going through the motions.

Current neuroscience has inspired me to be more committed to my daily practice. To find out that I can calm the amygdala and build up the prefrontal cortex to increase executive functioning is really exciting. It shows that I can change my brain.

**If any, what is relationship between mindfulness and creativity?**

Creativity is intrinsic to everybody. Also, what mindfulness allows us to do is tap into our ability to let go of preconceived notions of how we should be and allow creativity to flow. The state of flow is a sense of timelessness and utter focus on what is right in front of me in this moment. There is no possibility for distraction. There is a sense of joy with flow.

*Norbert Krumins*

**What is your definition of “mindfulness practice”?**

Definition from Plum Village (a retreat centre in France established by Zen Master Thich Nhat Hanh): Mindfulness is the energy of being aware and awake to the present moment. It is the continuous practice of touching life deeply in every moment in daily life. To be mindful is to be truly alive and present and at one with those around you and with what you are doing.

Mindfulness practice is about slowing down, calming the mind and being present with your own thoughts, body and surroundings.

**How might someone practice mindfulness?**

There are various ways to practice mindfulness and most of these ways would be considered meditation in one way or another, whether it is sitting meditation or walking meditation. Those are the two most commonly known meditations and probably sitting more than anything where the focus is on the breath.

There is continuous practice meaning you are always practicing. That is your way of being; you are always aware. That is a tall order...but ideally, that is how one would live their life.

**How might mindfulness practice be incorporating into a classroom setting? If you have experience with mindfulness in the classroom, how did you incorporate it?**

Invite students to spend 5 or more minutes meditating. I often start classes with a quiet meditation such as a breathing meditation or walking meditation.

Another piece is asking yourself, [as the instructor], “what do I bring to the classroom?” and “how do I bring my own mindfulness and my own way of being to the classroom?” If you were doing that with integrity, you are modeling behaviour.

[Being a mindful instructor] is about reading the energy in the room, which is the intuitive. Are the students stressed out?...Sometimes it is good to take a 15-minute lazy break. I found that students appreciated that.

**Why might mindfulness be important within the classroom?**

Educators have to ask themselves the question: What is the purpose of education? Why are we here? Is it only about gaining information knowledge? Or is it about building a better society? So my answer is: What we should be doing at the university is helping students be prepared to build a better society and inspire them to do that.

Quote by MC Richards (an educator and a potter): “The birth of person is the aim of pedagogy.”

Research has shown students who practice mindfulness have better grades so it does serve that aspect of education but if it is only that, I feel disappointed.

**If any, what is relationship between mindfulness and creativity?**

Mindfulness creates space in various ways and they say it is difficult to meditate quickly ...it is also difficult to think creatively quickly...You can

think creatively I suppose, I do not know what that feels like, but for me, as being someone who is also an artist in a broad sense, I need space to be able to practice my art-making.

Mindfulness allows me to slow down, to play and to wonder.

Mindfulness is about happiness. The retreat I took with Thich Nhat Hanh was called Mindfulness for Educators: Happy Teachers Will Change the World. When I am mindful, I am happy. I would challenge the person that says, "That is not a good idea." To create a happy, joyful atmosphere in the classroom can also help facilitate creativity in the classroom.

If I am angry, I am not in the frame of mind to be creative. When I am happy and peaceful, I am more apt to "pick up my guitar."

#### **Additional comments**

Paulo Knill coined the phrase "low skill, high sensitivity" when talking about expressive art therapy. I have embraced that notion of low skill and high sensitivity to encourage students and incorporate that motif when facilitating art making in the classroom.

Educators are designers...designing curriculum and making decisions about what we are going to talk about, what readings we want students to do...those are broadly defined as design.

As educators we do have responsibilities. Is our responsibility to feed information or to encourage decency? I believe it is the latter.

*Catherine Phillips*

#### **What is your definition of "mindfulness practice"?**

Mindfulness refers to awareness in the present moment without judgment. Mindfulness practice is the cultivation of this type of awareness through daily practice along with particular attitudes. We practice mindfulness with life enhancing attitudes rather than attitudes that are not constructive. For example, attitudes such as non-judgment, acceptance, kindness, patience, and beginner's mind.

Malcolm Gladwell writes about it taking 10,000 thousand hours to get really good at something... For example, you cannot sit down and just

play a piano concerto without practice the same way you can't be a basketball star without practice, even if you have enormous potential. Mindfulness is fascinating to understand and there is a lot of research [supporting it] but without the practice you do not get the benefits.

### **How might someone practice mindfulness?**

By setting time aside to practice on a daily basis.

Doing a body scan and being as fully present as possible with acceptance and without judgment...while going through each part of the body methodically.

The breath is an extension of the body; it flows in and out. A simple exercise would be sitting with awareness of breath.

It can be really helpful to start the day with a formal mindfulness practice...it makes it easier to carry into one's day. Mindfulness can also be practiced throughout the day by noticing when you are on autopilot and bringing your attention back into the present moment.

### **How might mindfulness practice be incorporating into a classroom setting? If you have experience with mindfulness in the classroom, how did you incorporate it?**

One of two ways:

1. Most important is embodying mindfulness oneself...actions speak louder than words.
2. Directly teaching mindfulness exercises in the classroom. For example, inviting the class to pause and notice that they are experiencing in the moment...zooming in to the quality of their breath whether their breath is rapid, slow, deep, shallow or narrow...and being curious about this.

Ring bells can be used to get the classes' attention and then invite the students to follow the sound of the bells until they cannot hear them any longer. They could put their hands up when the sound disappears. This gets students' attention and engages them as well.

### **If any, what is relationship between mindfulness and creativity?**

[The relationship] might relate to some of the attitudes of mindfulness, including openness, interest and curiosity.

Practicing mindfulness might also bring awareness to blocks that one might have. Through contemplation.... one could explore these blocks.

#### **Additional comments**

Mindfulness is a natural state of mind but we are so busy and bombarded by external stimuli that our minds tend to carry our attention out of the present moment. We live much of our lives on autopilot, bodies here, minds elsewhere, going through the motions and missing the moments that make up our lives.

#### *Undisclosed Mindfulness Practitioner*

##### **What is mindfulness?**

Mindfulness is about paying attention on purpose in the present moment without judgment or with acceptance of what comes up. I think the other piece [of mindfulness] is heartfulness; simple definition as being full hearted right now.

##### **What is your definition of “mindfulness practice”?**

To call something a practice implies consistency. Sometimes I use the term optative practice which means you are actually doing it.

I have worked with clients who experiment with meditation and for some people the first five minute are difficult—especially those who have never meditated before and are always in motion and highly driven to produce. To actually sit still and pay attention to your breath, or whatever it might be, for 5 minutes is a major challenge for some people.

Meditation is like brushing your teeth for your nervous system. It is like a foundational practice that helps build greater capacity for mindfulness.

##### **How might someone practice mindfulness?**

There could be a wide range of mindfulness practice...there is traditional breath and sitting practice, there is paying attention to the body and sensations, there is walking and eating practices. In all cases, it is about being fully present.

**How might mindfulness practice be incorporating into a classroom setting? If you have experience with mindfulness in the classroom, how did you incorporate it?**

I have made “mindfulness moments” a standard part of every class... each class we do a little mindfulness practice. Early in the term I do a presentation of what mindfulness is, what are the benefits, and why we would we do this and then I connect it to the learning outcomes with the course.

[Mindfulness practice] can be as simple as saying “let us do something to be here now”. So as people do at the beginning of a yoga class, “take a deep breath and let go of what is happened so far in the day” or “let go of anything that is going to happen beyond these four walls.”

### **Why might mindfulness be important within the classroom?**

People are very distracted and there is a lot of stimulation—more than ever in human history. There is a lot of evidence about the importance of focus and attention. To have a little practice, even if it is 2 minutes, “let us breath, let go and calm our minds,” is a way of connecting and coming together.

Learning will be enhanced if people are more present, focused and attentive. Mindfulness can help to produce that. There are other beneficial things that happen by doing mindfulness practice. It is part of a whole learning environment that I am seeking to create and I would speculate that it helps to present a message of care.

Teaching mindfully means that you [as the instructor] are more present and more attentive to your student’s world.

### **If any, what is relationship between mindfulness and creativity?**

If you believe that creativity involves being fully connected to yourself and to whatever other wisdom might be available, mindfulness enhances creativity.

If creativity is not just about grinding something out, if it is non-linear and if it benefits from patience, I think some of the capacities that are fostered by mindfulness will enhance creativity.

### **Additional comments**

One of the things that I think is not present in mindfulness stuff is the mood of enjoyment...it can be a little serious. So, there is the classic practice of eating a raisin. Well, I use chocolate.

So much of the education system closes down creativity and what is needed in some ways is permission for space.

*Judy Armstrong*

**Describe a few ideation exercises that you have implemented in the classroom in order to help your students generate novel ideas while they design?**

Exploratory projects: An example of an exploratory project that I do is the Object Project. A student starts by creating an object so that they do not have preconceived ideas about it. When they do the explorations, they do not know the end point. I also give them a list of criteria to allow them to go through exercises that they normally would not. When students are given this opportunity, they see things in new way and often have “light bulb” moments.

Decontextualizing and reinventing: I bring an object that everyone knows about, such as a pot, and then ask students to try and look at that object in a completely different way. A question that I ask students is: Can you tell me a story about yourself that relates to this object that has nothing to do with its normal function? This takes something out of its normal context and reinvents it.

Altering the design: Sometimes students will have come up with a fairly final solution to a design at the early stages of a project and they are seeing it in a certain way. In order for them to test out their design and look at it in new ways, I get them to alter it. I set a timer and ask them to make quick thumbnail sketches. I prompt them by saying: Make it fun. Make it sad. Make it this. Make that. Then, they compare their alternations to the original design to see different types of communication.

Visual telephone exercise: Through this exercise, students experience how certain symbols are iconic and cliché in their communication.

Workshop activity: An artist comes in and plays a song for the class. The students illustrate the rhythm visually by using patterns and non-representational forms...they then use colours that seem to communicate what they were hearing. Next, they choose words as emotions or tones related to the music.

From all of that, they have to build a visual and written narrative that expresses what was communicated during the workshop.

Students were not being critical of what they were creating...they were not trying to correct it. They were just going page after page and drawing things that came to their mind.

Timed exercises: I gave students 5 minutes to think of 50 words related to a topic and they wrote them down. Timing the exercise makes things less precious. Once students are done, they chose 6 words from their list and wrote each word on a separate piece of paper and put them into a bag. Then, another student in the class had to pick a word from the bag and visualize it using four straight lines and a circle.

Group story exercise: Students write out a sentence and then pass it to the student sitting next to them to write down another sentence. After a specified amount of time, the students read the stories out loud to see where it started and ended.

#### **Why might a student experience a creative block?**

Preconceived notions: Students have preconceived notions of what their design is going to look like and they cannot see it any other way.

Lack of time: Some realities such as “there is no more time” may result in a creative block.

Lack of research: Creative blocks might come from students not doing enough research on the topic.

#### **As an instructor, how would you help a student overcome a creative block?**

Providing suggestions: Providing suggestions can lead to stronger solutions, especially for structural things. So, I am not afraid to give students specific ideas. Sometimes they say, “I did not see that before.”

*Gillian Harvey*

**Describe a few ideation exercises that you have implemented in the classroom in order to help your students generate novel ideas while they design?**



Quick exercises: The best exercises are the ones that are done quickly. Working quickly makes students not edit themselves; it helps them become less critical at the beginning stage of the design process. It also makes them jump in without thinking too much... unexpected happy accidents can then happen.

Sensing: Exercises where you free your conscious mind can help you be creative. If you sense something and put it on paper, you can really work on it but if you thinking too much about it than the task becomes a chore. When you sense what you are doing, you do not spend too much time ruminating on all the possibilities or about what comes next.

Stick notes. Quickly write ideas on sticky notes and organizing them to show a hierarchy or a way of categorization.

Visual telephone. Start with a piece a paper. One person writes a sentence on it and then passes it to the person next to them who draws something. Then they pass it to the person next to them and the next person responds to the drawing and so on. It helps get the juices flowing.

Sketching: Sketch ideas out and then look at them together as a class. Though, I do not do this to often because I think students work better when they are asked to do something quickly and not spend too much time thinking.

#### **As an instructor, how would you help a student overcome a creative block?**

Put it away: I tell them to put it away and do something different... Putting it away is useful because your mind can think about something else and free up space which is why I think mindfulness has a place in this discipline.

Try a different approach: I try to go through the process with the student to see where they got stuck and then suggest a different approach to designing. For example, if they are stuck at the sketching stage, I tell them to try writing it out instead of drawing it.

#### **Additional comments**

We tell students that creativity is not just about a spark that you wait for because that is counter-intuitive to design thinking but sometimes that is how it happens.

When we free up space in our mind by doing mindfulness or certain creativity exercises, we can think in a process-oriented way.

As designers, we should know the design process but I think we should also use other skills to help free up space in our mind in order to work with the process.

*Layal Shuman*

**Describe a few ideation exercises that you have implemented in the classroom in order to help your students generate novel ideas while they design?**

Workshop activity: [In the first phase], I invite students to take photos of forms (living and non-living objects) in their environments. I emphasize the importance of looking at the world with fresh eyes to be able to capture forms that have interesting lines, shapes, patterns.

Students use tracing paper to trace lines, shapes and patterns from the various photos of forms that they took. I emphasize the idea of unlearning what the forms are; this helps students look at them with a new perspective. One of the techniques is to rotate the photo upside down so that they stop seeing for example a chair as a chair, instead they see it as a new interesting form...I also invite students to connect lines, shapes, and patterns from various photos.

Students in [the next] phase are encouraged to generate as many visual ideas as they can, without spending a lot of time polishing/fine tuning them...I invite students to choose 2 or 3 modules of their outcomes [from the previous phase] and draw them on Adobe Illustrator. I encourage students not to spend a lot of time fine tuning these modules until they choose one that works the most with their design strategies.

The obvious objective of this exercise is for students to generate unique forms rather than creating a logo or a logotype that is similar to many others in the 'market'. Other learning objectives include encouraging students to view the world around them with fresh eyes. Hopefully this exercise allows them to realize that they can find inspiration where they least expect. The trick is to learn how to unlearn the way we view and experience our daily environment.

**Why might a student experience a creative block?**

Lack of experience: A student will experience creative block just as any other novice or experienced designer will at many times throughout their careers. I think the difference between a novice designer, or a design student, and an experienced designer is that the latter develops strategies to quickly cope with creative block.

Stress: Stress leads to negative thinking and a fixation on problems. These thinking patterns block the flow of creativity, which requires flexible thinking and a solution-focused approach to responding to challenges.

Poor time management: Poor time management is very common and extremely normal among design students. It leads to creative block because design assignments become burdening items on students' 'to-do-lists' rather than interesting challenges that they would love to conquer.

Using first idea: ...Using the first idea that comes to their minds rather than exploring various approaches prior to making the design decision. Most of the times, initial ideas lack research and investigation, which makes these ideas immature.

Using software to develop ideas: Working on computer software to develop ideas might lead to creative block among students because they become bound to the limitations and possibilities of these software.

**As an instructor, are there any other ways that you would you help a student overcome a creative block?**

Put it away: If we are at the early stages of a project and a student experiences a creative block, I would encourage her to shut down her computer and take a walk or do something completely unrelated to the project.

Sketching ideas through drawing and writing: Inviting students to revisit their sketch pads to ideate through drawing and/or writing is an approach I use a lot to help students overcome creative block. Drawing and/ or writing is an intimate activity that helps our creativity to flow.

Seek inspiration: I encourage students to seek inspiration from various art forms. I have personally found cinema to inspire me a lot. I ask students to visit a gallery, listen to music and engage in whatever art form interests them. I think artistic expression embodies a lot of freedom, which presents a significant reminder for designers to 'loosen up' and explore unfamiliar territories.

Research various design approaches: I encourage students to research the various approaches that other designers have used to tackle the same challenge(s) that they are working with. Learning from other people's experiences saves us time to fall in the same traps.

*Andrea Van Der Ree*

**Describe a few ideation exercises that you have implemented in the classroom in order to help your students generate novel ideas while they design?**

Specific deliverable: Having specific deliverables could trigger creativity because when a project is so open, a student can get lost. Deliverables can give them a path to follow which is especially important for young students.

Mind mapping: Start with a theme or an idea and create roots or ramification from it. The roots create different connections. A student needs time to make these connections in order to be original and go beyond the surface.

Design matrix: You have a topic and you have themes that are set up on a grid or matrix. You then make connections between the topic and themes to force you to think in different ways.

Principles designs: Design principles can be used to help improve a design, such as a layout for a poster. Using these principles can help give a student structure and direction while working. For example, if you use asymmetry and overlapping and combine them as part of a layout, you can change your original approach and make your design more effective.

Sketching: If you draw out your ideas and then put them away, you will be more present when you are trying to think of other ideas. Sketching helps you put thoughts on paper and easily move forward because you do not have to remember your ideas.

...Personally, is not just doodling...Sometimes ideas can come from doodling through repeating certain forms which can then transform the idea. [Sketching] is about instant creation and immediate evaluation.

Case studies: The instructor can share a case study with their class as part of an in-class presentation. It could be an image that students have to evaluate. This gets them thinking and helps create a dialogue within the class. Case studies also show them examples of creativity.

### **Why might a student experience a creative block?**

Technical barriers: Students might not know how to create their designs using certain software. They can visualize their idea but they do not know how to execute it.

Lack of experience: Students might not know how to improve their designs because they lack experience.

Lack of interest: If you have no interest in the project, then you won't be engaged or inspired to be creative. It helps a student to be creative if they have a level of connection with the project's theme or topic.

### **As an instructor, how would you help a student overcome a creative block?**

Sharing reference materials: Referencing other work can be a great way to get inspired. This does not mean copying a design. Looking at something that works well and is interesting can give you an idea and create new connections.

Define deliverables but still remain open: Projects should be well written and defined but it is good for students to pick the topic so that they can be engaged.

Exercising one's own creativity abilities: An instructor has to be very creative so that they have ideas and can make suggestions to their students.

Teach a specific class more than once: An instructor who teaches a class a few times has more experience to help their students with creative blocks. They can help students troubleshoot by changing parts of the project or addressing concerns.

**Additional comments**

Some students think more linearly or practical while others think more subjectively and enjoy working with their imagination.

When crossing boundaries, creativity comes out.

*Undisclosed Education Specialist*

**Describe a few exercises that you—as part of your role within the field of teaching and learning—might develop in order to help students generate novel ideas in the classroom?**

The context is a post-secondary courses related to social studies elementary education.

Design the ideal classroom: Instruct students to design an ideal floor plan and then have them justify their decisions.

Online Scrapbook: Instruct students to create a scrapbook of an issue that could be used as part of the controversial issues component of the classroom curriculum

Learning Centers: Instruct students to create learning centres in the classroom and then take a gallery walk to share their centres with other students.

Metaphors: Instruct students to create metaphors that describe their beliefs and understanding of a specific topic.

**How might an educational specialist help students overcome creative blocks?**

Working in groups is a good way to stimulate creativity. Instructors can throw out an idea to investigate and then working as a team, students explain the issues and bring personal experience to how they would interpret these issues. Then as a group, the students decide how to resolve the problem.

**Have you heard of mindfulness, or other contemplative practices, being incorporated into classroom settings? If you have, how so?**

From an educator's perspective, mindfulness is equal to reflectiveness. I have always supported mindfulness in my teaching by having students

engage in reflection. That may be something like writing a blog or a dialogue journal (conversation between the instructor and the student).

Some [former education students] tell me that they have continued to use a journal [while teaching]. They say that it is beneficial because it makes them stop think and makes sure their minds on, not just their hands. To me, that is where I see mindfulness in education: reflexivity. Reflexivity is about being contemplative of everything your doing on the job. Mindfulness may be the umbrella term and under it would be reflexivity as one piece of it.

## 7.22 INTERVIEW DATA BY QUESTION

### *What is mindfulness?*

Mindfulness is about paying attention on purpose in the present moment without judgment or with acceptance of what comes up (Norbert Krumins).

Definition from Plum Village (a retreat centre in France established by Zen Master Thich Nhat Hanh): Mindfulness is the energy of being aware and awake to the present moment. It is the continuous practice of touching life deeply in every moment in daily life. To be mindful is to be truly alive and present and at one with those around you and with what you are doing (Norbert Krumins).

### *What is your definition of mindfulness practice?*

#### **Mindfulness practice involves slowing down and easing into the moment**

Mindfulness practice is about slowing down, calming the mind, and being present with your own thoughts, body and surroundings (Norbert Krumins).

Mindfulness practice is about paying attention to the present moment; easing and relaxing into what is now. It is also about getting out of your own way in terms of over-thinking and worrying (Michelle Johnston).

#### **Mindfulness practice enhances certain attitudes**

We practice mindfulness with life enhancing attitudes rather than attitudes that are not constructive. These attitudes may include non-judgment, acceptance, kindness, compassion, patience and beginner's mind (Catherine Phillips).

#### **Mindfulness practice requires effort and is not necessarily easy**

To call something a practice implies consistency. Sometimes I use the term optative practice which means you are actually doing it (undisclosed interviewee).

Malcolm Gladwell writes about it taking 10,000 thousand hours to get really good at something...For example, you cannot sit down and just play



a piano concerto without practice the same way you can't be a basketball star without practice, even if you have enormous potential. Mindfulness is fascinating to understand and there is a lot of research [supporting it] but without the practice you do not get the benefits (Catherine Phillips).

I have worked with clients who experimented with meditation and for some people the first five minutes are difficult—especially those who have never meditated before and are always in motion and highly driven to produce. To actually sit still and pay attention to your breath, or whatever it might be, for 5 minutes is a major challenge (undisclosed interviewee).

*How might someone practice mindfulness?*

**Mindfulness practice involves formal and informal practices**

In my experience, there is formal and informal practice. Formal sitting meditation is where one focuses on the breath or body or sounds to anchor them to the present moment. Informal practice is about the awareness of what is currently happening inside and out as one goes about one's day (undisclosed interviewee).

It can be really helpful to start the day with a formal mindfulness practice...it makes it easier to carry into one's day. Mindfulness can also be practiced throughout the day by noticing when you are on autopilot and bringing your attention back into the present moment (Catherine Phillips).

**Common meditations including sitting/breathing, walking, and body scanning**

There are various ways to practice mindfulness and most of these ways would be considered meditation in one way or another, whether it is sitting meditation or walking meditation. Those are the two most commonly known meditations and probably sitting more than anything where the focus is on the breath (Norbert Krumins).

There could be a wide range of mindfulness practice...there is traditional breath and sitting practice, there is paying attention to the body and sensations, there is walking and eating practices. In all cases, it is about being fully present (undisclosed interviewee).

Doing a body scan and being as fully present as possible with acceptance and without judgment...while going through each part of the body methodically (Catherine Phillips).

With the busyness and complexity of our lives, sitting and breathing practice is invaluable. It is something that is accessible to everyone (Michelle Johnston).

The breath is an extension of the body; it flows in and out. A simply exercise would be sitting with awareness of breath (Catherine Phillips).

**Mindfulness can be practiced anywhere throughout the day and at any time**

There are always opportunities for one to be mindful...it can be used anywhere at any time (undisclosed interviewee).

Mindfulness can be practiced throughout the day by noticing when you are on autopilot (Catherine Phillips).

There is continuous practice meaning you are always practicing. That is your way of being; you are always aware. That is a tall order ...but ideally, that is how one would live their life (Norbert Krumins).

*How might mindfulness practice be incorporated into a classroom setting? If you have experience with mindfulness in the classroom, how did you incorporate it?*

**Mindfulness can be incorporated into the classroom by taking a few minutes to practice as a class**

I have made "mindfulness moments" a standard part of every class... each class we do a little mindfulness practice. Early in the term I do a presentation of what mindfulness is, what the benefits are, and why we would we do it (undisclosed interviewee).

To have a little practice, even if it is 2 minutes, "let us breath, let us let go and calm our minds," is a way of connecting and coming together (undisclosed interviewee).

Invite students to spend 5 or more minutes meditating. I often start classes with a quiet meditation such as a breathing meditation or walking meditation (Norbert Krumsins).

Ring bells can be used to get the classes' attention and then invite the students to follow the sound of the bells until they cannot hear them any longer. They could put their hands up when the sound disappears. This gets students' attention and engages them as well (Catherine Phillips).

**Mindfulness can be incorporated in the classroom by inviting the students to notice their breath and/or body sensations**

By inviting the class to pause and notice what they are experiencing in the moment...zooming in to the quality of their breath whether their breath is rapid, slow, deep, shallow or narrow...and being curious about this (Catherine Phillips).

I have invited the students to focus on their breath and in doing so they are able to learn about emotional regulation by simply regulating their breath (undisclosed interviewee).

Mindfulness practice can be as simple as saying "lets do something to be here now". So as people do at the beginning of a yoga class, "take a deep breath and let go of what is happened so far in the day" or "let go of anything that is going to happen beyond these four walls" (undisclosed interviewee).

By slowing down, and trying to cultivate awareness of one's surroundings and also body awareness. Becoming mindful of what is going on in the body... can give you signals of how you are doing emotionally (undisclosed interviewee).

**Mindfulness can be connected to what the students are learning**

I formally introduced mindfulness to students in 2011 in a leadership class and I felt like it was a good fit. It might be useful to incorporate it in a way that connects to something that the students are learning (Michelle Johnston).

One way to share mindfulness with students is to connect it with a value under the umbrella of social emotional learning (ex. good friends, being kind). This is a way for it to be sustainable and answers the "why are we doing this" (Michelle Johnston).

I connect mindfulness to the learning outcomes with the course  
(undisclosed interviewee).

**An instructor should have his/her own practice if they are going to integrate it into their classroom**

Most important is embodying mindfulness oneself [as an instructor]... actions speaks louder than words (Catherine Phillips).

Another piece is asking yourself, [as the instructor], “what do I bring to the classroom?” and “how do I bring my own mindfulness and my own way of being to the classroom?” If you were doing that with integrity, you are modeling behaviour (Norbert Krumins).

Most beneficial circumstance is for teachers to have their own practice. Students will pick up on if their teacher is actually mindful or if they are just going through the motions (undisclosed interviewee).

[Being a mindful instructor] is about reading the energy in the room, which is the intuitive. Are the students stressed out?...Sometimes it is good to take a 15-minute lazy break. I found that students appreciated that (Norbert Krumins).

*Why might mindfulness be important within the classroom?*

**Mindfulness is important in the classroom because it helps students exercise the skill of attention**

People are very distracted [now] and there is a lot of stimulation—more than ever in human history. There is a lot of evidence about the importance of focus and attention connected to mindfulness (undisclosed interviewee).

Learning will be enhanced if people are more present, focused, and attentive. Mindfulness can help to produce that. There are other beneficial things that happen by doing mindfulness practice (undisclosed interviewee).

**Mindfulness in the classroom helps present a message of care. It also helps student’s develop compassion**

It is part of a whole learning environment that I am seeking to create and I would speculate that it helps to present a message of care (undisclosed interviewee).

Teaching mindfully means that you [as the instructor] are more present and more attentive to your student's world (undisclosed interviewee).

In the classroom, mindfulness is an amazing opportunity for students to develop compassion and empathy (undisclosed interviewee).

**Practicing mindfulness is a way of building community**

In our culture, we emphasize being excellent, excelling or standing out instead of being part of a community—learning to get along and understand ourselves and one another. Mindfulness helps build community (Michelle Johnston).

*If any, what is relationship between mindfulness and creativity?*

**Mindfulness and creativity involve feeling happy and fully connected to oneself**

Mindfulness is about happiness. The retreat I took with Thich Nhat Hanh was called Mindfulness for Educators: Happy Teachers Will Change the World. When I am mindful, I am happy. I would challenge the person that says, "That is not a good idea." To create a happy, joyful atmosphere in the classroom can also help facilitate creativity in the classroom (Norbert Krumins).

If I am angry I am not in the frame of mind to be creative. When I am happy and peaceful, I am more apt to "pick up my guitar," (Norbert Krumins).

If you believe that creativity involves being fully connected to yourself and to whatever other wisdom might be available, mindfulness enhances creativity.

**In order to be creative, and to let ideas and experiences flow, there needs to be stillness and space**

So much of the education system closes down creativity and what is needed in some ways is permission for space (undisclosed interviewee).

Ideas can come from other ideas but when we are still, sometimes they just bubble up and flow (Michelle Johnston).

There was an interview with Paul McCartney who said the song just flows. It is about flow which is about being in the moment and letting yourself be carried by and trust in the moment. For this there needs to be stillness and space (Michelle Johnston).

What mindfulness allows us to do is tap into our ability to let go of preconceived notions of how we should be and allow creativity to flow. The state of flow is a sense of timelessness and utter focus on what is right in front of me in this moment. There is no possibility for distraction. There is a sense of joy with flow (undisclosed interviewee).

Mindfulness creates space in various ways and they say it is difficult to meditate quickly ...it is also difficult to think creatively quickly. You can think creatively I suppose, I do not know what that feels like, but for me, as being someone who is also an artist in a broad sense, I need space to be able to practice my art-making (Norbert Krumins).

**Creativity relates to certain attitudes of mindfulness such as openness, interest and curiosity**

The relationship might relate to some of the attitudes of mindfulness including openness, interest and curiosity (Catherine Phillips).

If creativity is not just about grinding something out, if it is non-linear and if it benefits from patience, I think some of the capacities that are fostered by mindfulness will enhance creativity (undisclosed interviewee).

**Mindfulness may help people become more aware of their creative blocks**

Practicing mindfulness might also bring awareness to blocks that one might have. Through contemplation...one could explore these blocks (Catherine Phillips).

**Mindfulness allows us to slow down, to play, and to wonder (Norbert Krumins)**

*Additional comments*

**Mindfulness does not have to be serious**

One of the things that I think is not present in mindfulness stuff is the mood of enjoyment...it can be a little serious. So, there is the classic practice of eating a raisin. Well, I use chocolate (undisclosed interviewee).

**Mindfulness is a natural state of mind**

Mindfulness is a natural state of mind but we are so busy and bombarded by external stimuli that our minds tend to carry our attention out of the present moment. We live much of our lives on autopilot, bodies here, minds elsewhere, going through the motions, and missing the moments that make up our lives (Catherine Phillips).

**Meditation is like brushing your teeth for your nervous system**

Meditation is like brushing your teeth for your nervous system. It is like a foundational practice that helps build greater capacity for mindfulness (undisclosed interviewee).

**There are connotations related to the term meditation**

I did not call it meditation but instead I say practicing mindfulness...I think that there is a connotation with meditation and there are so many forms of meditation, such as clearing the mind and mantra's, but mindfulness is about being with whatever arises. Meditation in some ways is a loaded term (Michelle Johnston).

**Educators should reflect on their own purpose and practice**

Educators have to ask themselves the question: What is the purpose of education? Why are we here? Is it only about gaining information knowledge? Or is it about building a better society? So my answer is: What we should be doing at the University is helping students be prepared to build a better society and inspire them to do that (Norbert Krumins).

**Educators are designers**

Educators are designers...designing curriculum and making decisions about what we are going to talk about, what readings we want students to do...those are broadly defined as design (Norbert Krumins).

*Describe a few ideation exercises that you have implemented in the classroom in order to help your students generate novel ideas while they design?*

**Exploratory projects**

An example of an exploratory project that I do is the Object Project. A student starts by creating an object so that they do not have

preconceived ideas about it. When they do the explorations, they do not know the end point. I also give them a list of criteria to allow them to go through exercises that they normally would not. When students are given this opportunity, they see things in new way and often have “light bulb” moments (Judy Armstrong).

### **Decontextualizing and reinventing**

I bring an object that everyone knows about, such as a pot, and then ask students to try and look at that object in a completely different way. A question that I ask students is: Can you tell me a story about yourself that relates to this object that has nothing to do with its normal function? This takes something out of its normal context and reinvents it (Judy Armstrong).

### **Altering the design**

Sometimes students will have come up with a fairly final solution to a design at the early stages of a project and they are seeing it in a certain way. In order for them to test out their design and look at it in new ways, I get them to alter it. I set a timer and ask them to make quick thumbnail sketches. I prompt them by saying: Make it fun. Make it sad. Make it this. Make that. Then, they compare their alternations to the original design to see different types of communication (Judy Armstrong).

### **Visual telephone exercise (timed)**

Start with a piece a paper. One person writes a sentence on it and then passes it to the person next to them who draws something. Then they pass it to the person next to them and the next person responds to the drawing and so on. It helps get the juices flowing (Gillian Harvey).

Through this exercise, students experience how certain symbols are iconic and cliché in their communication (Judy Armstrong).

### **Exploratory workshop activity 1**

An artist comes in and plays a song for the class. The students illustrate the rhythm visually by using patterns and non-representational forms... they then use colours that seem to communicate what they were hearing.

Next, they choose words as emotions or tones related to the music. From all of that, they have to build a visual and written narrative that expresses



what was communicated during the workshop. Students were not being critical of what they were creating...they were not trying to correct it. They were just going page after page and drawing things that came to their mind (Judy Armstrong).

### **Exploratory workshop activity 2**

[In the first phase], I invite students to take photos of forms (living and non-living objects) in their environments. I emphasize the importance of looking at the world with fresh eyes to be able to capture forms that have interesting lines, shapes, patterns.

Students use tracing paper to trace lines, shapes and patterns from the various photos of forms that they took. I emphasize the idea of unlearning what the forms are; this helps students look at them with a new perspective. One of the techniques is to rotate the photo upside down so that they stop seeing for example a chair as a chair, instead they see it as a new interesting form...I also invite students to connect lines, shapes, and patterns from various photos.

Students in [the next] phase are encouraged to generate as many visual ideas as they can, without spending a lot of time polishing/fine tuning them...I invite students to choose 2 or 3 modules of their outcomes [from the previous phase] and draw them on Adobe Illustrator. I encourage students not to spend a lot of time fine tuning these modules until they choose one that works the most with their design strategies.

The obvious objective of this exercise is for students to generate unique forms rather than creating a logo or a logotype that is similar to many others in the 'market'. Other learning objectives include encouraging students to view the world around them with fresh eyes. Hopefully this exercise allows them to realize that they can find inspiration where they least expect. The trick is to learn how to unlearn the way we view and experience our daily environment (Layal Shuman).

### **Quick or timed exercises**

The best exercises are the ones that are done quickly. Working quickly makes students not edit themselves; it helps them become less critical at the beginning stage of the design process. It also makes them jump in without thinking too much... unexpected happy accidents can then happen (Gillian Harvey).

I gave students 5 minutes to think of 50 words related to a topic and they wrote them down. Timing the exercise makes things less precious. Once students are done, they chose 6 words from their list and wrote each word on a separate piece of paper and put them into a bag. Then, another student in the class had to pick a word from the bag and visualize it using four straight lines and a circle (Judy Armstrong).

### **Group story exercise**

Students write out a sentence and then pass it to the student sitting next to them to write down another sentence. After a specified amount of time, the students read the stories out loud to see where it started and ended (Judy Armstrong).

### **Sensing**

Exercises where you free your conscious mind can help you be creative. If you sense something and put it on paper, you can really work on it but if you thinking too much about it than the task becomes a chore. When you sense what you are doing, you do not spend too much time ruminating on all the possibilities or about what comes next (Gillian Harvey).

### **Stick notes**

Quickly write ideas on sticky notes and organizing them to show a hierarchy or a way of categorization (Gillian Harvey).

### **Sketching**

Sketch ideas out and then look at them together as a class. Though, I do not do this too often because I think students work better when they are asked to do something quickly and not spend too much time thinking (Gillian Harvey).

If you draw out your ideas and then put them away, you will be more present when you are trying to think of other ideas. Sketching helps you put thoughts on paper and easily move forward because you do not have to remember your ideas (Andrea Der Ree).

...Personally, is not just doodling...Sometimes ideas can come from doodling through repeating certain forms which can then transform the idea. [Sketching] is about instant creation and immediate evaluation (Andrea Der Ree).

**Requiring specific deliverables**

Requiring specific deliverables could trigger creativity because when a project is so open, a student can get lost. Deliverables can give them a path to follow which is especially important for young students (Andrea Der Ree).

**Mind mapping**

Start with a theme or an idea and create roots or ramification from it. The roots create different connections. A student needs time to make these connections in order to be original and go beyond the surface (Andrea Der Ree).

**Design matrix**

You have a topic and you have themes that are set up on a grid or matrix. You then make connections between the topic and themes to force you to think in different ways (Andrea Der Ree).

**Using principles designs**

Design principles can be used to help improve a design, such as a layout for a poster. Using these principles can help give a student structure and direction while working. For example, if you use asymmetry and overlapping and combine them as part of a layout, you can change your original approach and make your design more effective (Andrea Der Ree).

**Investigate Case studies**

The instructor can share a case study with their class as part of an in-class presentation. It could be an image that students have to evaluate. This gets them thinking and helps create a dialogue within the class. Case studies also show them examples of creativity (Andrea Der Ree).

*Why might a student experience a creative block?*

**Having preconceived notions**

Students have preconceived notions of what their design is going to look like and they cannot see it any other way (Judy Armstrong).

**Lack of experience**

Students might not know how to improve their designs because they lack experience (Andrea Der Ree).

A student will experience creative block just as any other novice or experienced designer will at many times throughout their careers. I think the difference between a novice designer, or a design student, and an experienced designer is that the latter develops strategies to quickly cope with creative block (Layal Shuman).

#### **Lack of time**

Some realities such as “there is no more time” may result in a creative block (Judy Armstrong).

#### **Lack of research**

Creative blocks might come from students not doing enough research on the topic (Judy Armstrong).

#### **Lack of interest**

If you have no interest in the project, then you won't be engaged or inspired to be creative. It helps a student to be creative if they have a level of connection with the project's theme or topic (Andrea Der Ree).

#### **Technical barriers**

Students might not know how to create their designs using certain software. They can visualize their idea but they do not know how to execute it (Andrea Der Ree).

#### **Stress**

Stress leads to negative thinking and a fixation on problems. These thinking patterns block the flow of creativity, which requires flexible thinking and a solution-focused approach to responding to challenges (Layal Shuman).

#### **Poor time management**

Poor time management is very common and extremely normal among young design students. It leads to creative block because design assignments become burdening items on students' 'to-do-lists' rather than interesting challenges that they would love to conquer (Layal Shuman).

### **Using the first idea that comes to mind**

...Using the first idea that comes to their minds rather than exploring various approaches prior to making the design decision. Most of the times, initial ideas lack research and investigation, which makes these ideas superficial (Layal Shuman).

### **Using software to develop ideas**

Working on computer software to develop ideas might lead to creative block among students because they become bound to the limitations and possibilities of these software (Layal Shuman).

*As an instructor, how would you help a student overcome a creative block?*

### **Providing suggestions**

Providing suggestions can lead to stronger solutions, especially for structural things. So, I am not afraid to give students specific ideas. Sometimes they say, “I did not see that before” (Judy Armstrong).

### **Make a suggestion to put the work away for now**

I tell them to put it away and do something different...Putting it away is useful because your mind can think about something else and free up space which is why I think mindfulness has a place in this discipline (Gillian Harvey).

If we are at the early stages of a project and a student experiences a creative block, I would encourage her to shut down her computer and take a walk or do something completely unrelated to the project (Layal Shuman).

### **Encourage students to try different approaches**

I try to go through the process with the student to see where they got stuck and then suggest a different approach to designing. For example, if they are stuck at the sketching stage, I tell them to try writing it out instead of drawing it (Gillian Harvey).

I encourage students to research the various approaches that other designers have used to tackle the same challenge(s) that they are working with. Learning from other people’s experiences saves us time to fall in the same traps (Layal Shuman).

**Share reference materials**

Referencing other work can be a great way to get inspired. This does not mean coping a design. Looking at something that works well and is interesting can give you an idea and create new connections (Andrea Der Ree).

**As an instructor, exercise one's own creativity abilities**

An instructor has to be very creativity so that they have ideas and can make suggestions to their students (Andrea Der Ree).

**Teach a specific class more than once**

An instructor who teaches a class a few times has more experience to help their students with creative blocks. They can help students troubleshoot by changing parts of the project or addressing concerns (Andrea Der Ree).

**Suggest sketching ideas through drawing and writing**

Inviting students to revisit their sketch pads to ideate through drawing and/or writing is an approach I use a lot to help students overcome creative block. Drawing and/ or writing is an intimate activity that helps our creativity to flow (Layal Shuman).

**Encourage students to seek inspiration**

I encourage students to seek inspiration from various art forms. I have personally found cinema to inspire me a lot. I ask students to visit a gallery, listen to music and engage in whatever art form interests them. I think artistic expression embodies a lot of freedom, which presents a significant reminder for designers to 'loosen up' and explore unfamiliar territories (Layal Shuman).

*Additional comments***Freeing up space in our mind and practicing mindfulness can lead to creativity**

When we free up space in our mind by doing mindfulness or certain exercises, we can think in a process-oriented way (Gillian Harvey).

As designers, we should know the design process but I think we should also use other skills to help free up space in our mind in order to work with the process (Gillian Harvey).

## **7.23 CONSENT FORMS**

### **Semi-structured interviews**

- » Consent forms
- » Consent for acknowledgement forms

### **Exploratory workshop**

- » Consent forms
- » Consent for acknowledgement forms

**CONSENT FORM**  
**Semi-Structured Interviews**

**Study Title:** Ideation, Creativity, and Mindfulness: Investigating the Influence of Mindfulness Practice in Design Education

**Principal Investigator:** Justin Pritchard, University of Alberta, [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), (780) 862-9357

Do you understand that you have been asked to be in a research study?

☒ Yes ☐ No

Have you read and received a copy of the attached information sheet?

☒ Yes ☐ No

Do you understand the benefits and risks involved in taking part in this research?

☒ Yes ☐ No

Have you had an opportunity to ask questions and discuss this research?

☒ Yes ☐ No

Do you understand that you are free to refuse to participate, or to withdraw from the research activity at any time, without consequence?

☒ Yes ☐ No

Do you understand that you can change your mind after you participate, and withdraw your comments 1-month after the research activity?

☒ Yes ☐ No

Has the issue of confidentiality been explained to you? Do you understand who will have access to your information?

☒ Yes ☐ No

Do you understand that audio recording in the semi-structured interview will only be used to collect and analyze data, and that I will not use the recording in the Master's thesis report, exhibition, and/or other presentations?

☒ Yes ☐ No

Do you choose to be acknowledged for your participation in this research? If you answer YES, please fill out a Consent for Acknowledgement form.

Yes ☒ No

This study was explained to me by: Justin Pritchard

I have read and understand the attached information letter and agree to take part in this study:

April 13 / 15  
Date

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

[Signature]  
Signature of Investigator

April 13, 2015  
Date

A COPY OF THIS DOCUMENT SHOULD BE GIVEN TO THE PARTICIPANT.



**CONSENT FORM**  
**Semi-Structured Interviews**

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Do you understand that you have been asked to be in a research study?

☒ Yes

No

Have you read and received a copy of the attached information sheet?

☒ Yes

No

Do you understand the benefits and risks involved in taking part in this research?

☒ Yes

No

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No

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No

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☒ Yes

No

Has the issue of confidentiality been explained to you? Do you understand who will have access to your information?

☒ Yes

No

Do you understand that audio recording in the semi-structured interview will only be used to collect and analyze data, and that I will not use the recording in the Master's thesis report, exhibition, and/or other presentations?

☒ Yes

No

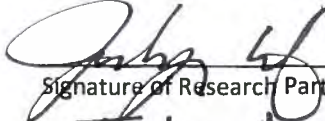
Do you choose to be acknowledged for your participation in this research? If you answer YES, please fill out a Consent for Acknowledgement form.

☒ Yes

No

This study was explained to me by: Justin Pritchard


I have read and understand the attached information letter and agree to take in this study:

  
Signature of Research Participant

April 9, 2015  
Date

Judy Armstrong  
Printed Name

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

  
Signature of Investigator

April 4, 2015  
Date

A COPY OF THIS DOCUMENT SHOULD BE GIVEN TO THE PARTICIPANT.

**CONSENT FORM**  
**Semi-Structured Interviews**

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Do you understand that you have been asked to be in a research study?

Yes

No

Have you read and received a copy of the attached information sheet?

Yes

No

Do you understand the benefits and risks involved in taking part in this research?

Yes

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Have you had an opportunity to ask questions and discuss this research?

Yes

No

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Yes

No

Do you understand that you can change your mind after you participate, and withdraw your comments 1-month after the research activity?

Yes

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Yes

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Yes

No

Do you choose to be acknowledged for your participation in this research? If you answer YES, please fill out a Consent for Acknowledgement form.

Yes

No

This study was explained to me by: Justin

I have read and understand the attached information letter and agree to take part in this study:

G. Harvey  
Signature of Research Participant

22 April 2015  
Date

Gillian Harvey  
Printed Name

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

[Signature]  
Signature of Investigator

April 22, 2015  
Date

A COPY OF THIS DOCUMENT SHOULD BE GIVEN TO THE PARTICIPANT.

**CONSENT FORM**  
**Semi-Structured Interviews**

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Do you understand that you have been asked to be in a research study?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
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Do you choose to be acknowledged for your participation in this research? If you answer YES, please fill out a Consent for Acknowledgement form.	<input checked="" type="radio"/> Yes	<input type="radio"/> No

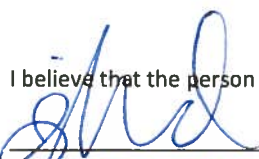
This study was explained to me by: Justin Pritchard

I have read and understand the attached information letter and agree to take in this study:

  
Signature of Research Participant

April 16, 2015  
Date

Andrea Van Der Ree  
Printed Name

  
Signature of Investigator

April 16, 2015  
Date

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

A COPY OF THIS DOCUMENT SHOULD BE GIVEN TO THE PARTICIPANT.

**CONSENT FORM**  
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**Principal Investigator:** Justin Pritchard, University of Alberta, [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), (780) 862-9357

Do you understand that you have been asked to be in a research study?

Yes

No

Have you read and received a copy of the attached information sheet?

Yes

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Do you understand the benefits and risks involved in taking part in this research?

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Yes

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Yes

No

Do you understand that audio recording in the semi-structured interview will only be used to collect and analyze data, and that I will not use the recording in the Master's thesis report, exhibition, and/or other presentations?

Yes

No-NA

Do you choose to be acknowledged for your participation in this research? If you answer YES, please fill out a Consent for Acknowledgement form.

Yes

No

This study was explained to me by:

Justin Pritchard

I have read and understand the attached information letter and agree to take in this study:

Loyal  
Signature of Research Participant

April 23, 2015  
Date

Loyal Shuman  
Printed Name

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

[Signature]  
Signature of Investigator

April 23, 2015  
Date

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Do you choose to be acknowledged for your participation in this research? If you answer YES, please fill out a Consent for Acknowledgement form.	<input type="radio"/> Yes	<input checked="" type="radio"/> No

This study was explained to me by: Justin

I have read and understand the attached information letter and agree to take in this study:

Mar. 31/15  
Date

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

[Signature]  
Signature of Investigator

march 31/2015  
Date

A COPY OF THIS DOCUMENT SHOULD BE GIVEN TO THE PARTICIPANT.

**CONSENT FORM**  
**Semi-Structured Interviews**

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**Principal Investigator:** Justin Pritchard, University of Alberta, [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), (780) 862-9357

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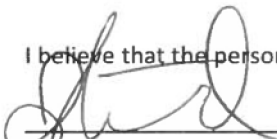
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| Do you understand that you have been asked to be in a research study?   | <input checked="" type="radio"/> Yes | <input type="radio"/> No            |
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| Do you choose to be acknowledged for your participation in this research? If you answer YES, please fill out a Consent for Acknowledgement form.  | <input type="radio"/> Yes            | <input checked="" type="radio"/> No |

This study was explained to me by: Justin Pritchard

I have read and understand the attached information letter and agree to take in this study:

31 March  
Date

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

  
\_\_\_\_\_  
Signature of Investigator

March 31, 2015  
Date

A COPY OF THIS DOCUMENT SHOULD BE GIVEN TO THE PARTICIPANT.

**CONSENT FORM**  
**Semi-Structured Interviews**


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- Do you understand that you have been asked to be in a research study? ☒ Yes ☐ No
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- Do you choose to be acknowledged for your participation in this research? If you answer YES, please fill out a Consent for Acknowledgement form. ☒ Yes ☐ No

This study was explained to be by: Justin Pritchard

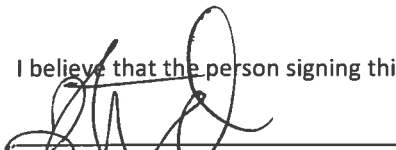
I have read and understand the attached information letter and agree to take in this study:

  
Signature of Research Participant

March 24, 2015  
Date

Michelle Johnston  
Printed Name

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

  
Signature of Investigator

March 24, 2015  
Date

A COPY OF THIS DOCUMENT SHOULD BE GIVEN TO THE PARTICIPANT.



**CONSENT FORM**  
**Semi-Structured Interviews**

**Study Title:** Ideation, Creativity, and Mindfulness: Investigating the Influence of Mindfulness Practice in Design Education  
**Principal Investigator:** Justin Pritchard, University of Alberta, [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), (780) 862-9357

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Do you understand that you have been asked to be in a research study?

Yes

No

Have you read and received a copy of the attached information sheet?

Yes

No

Do you understand the benefits and risks involved in taking part in this research?

Yes

No

Have you had an opportunity to ask questions and discuss this research?

Yes

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Yes

No

Do you understand that audio recording in the semi-structured interview will only be used to collect and analyze data, and that I will not use the recording in the Master's thesis report, exhibition, and/or other presentations?

Yes

No

Do you choose to be acknowledged for your participation in this research? If you answer YES, please fill out a Consent for Acknowledgement form.

Yes

No

This study was explained to me by: JUSTIN PRITCHARD

I have read and understand the attached information letter and agree to take part in this study:



Signature of Research Participant

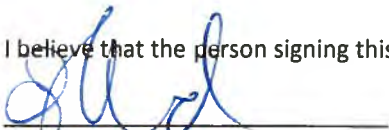
MARCH 25/15

Date

NOUBERT KRUMINS

Printed Name

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.



Signature of Investigator

MARCH 25, 2015

Date

A COPY OF THIS DOCUMENT SHOULD BE GIVEN TO THE PARTICIPANT.



**CONSENT FORM**  
**Semi-Structured Interviews**

**Study Title:** Ideation, Creativity, and Mindfulness: Investigating the Influence of Mindfulness Practice in Design Education  
**Principal Investigator:** Justin Pritchard, University of Alberta, [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), (780) 862-9357

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Do you understand that you have been asked to be in a research study?	<input checked="" type="radio"/> Yes	No
Have you read and received a copy of the attached information sheet?	<input checked="" type="radio"/> Yes	No
Do you understand the benefits and risks involved in taking part in this research?	<input checked="" type="radio"/> Yes	No
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Do you choose to be acknowledged for your participation in this research? If you answer YES, please fill out a Consent for Acknowledgement form.	<input checked="" type="radio"/> Yes	No

This study was explained to me by: Justin Pritchard

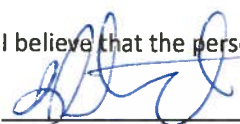
I have read and understand the attached information letter and agree to take in this study:

  
Signature of Research Participant

April 6 2015  
Date

Catherine L. Phillips  
Printed Name

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

  
Signature of Investigator

April 6 2015  
Date

A COPY OF THIS DOCUMENT SHOULD BE GIVEN TO THE PARTICIPANT.

## CONSENT FOR ACKNOWLEDGEMENT FORM

### Semi-Structured Interviews

**Study Title:** Ideation, Creativity, and Mindfulness: Investigating the Influence of Mindfulness Practice in Design Education

**Principal Investigator:** Justin Pritchard, University of Alberta, [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), (780) 862-9357

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As a participant in the research project: 'Ideation, Creativity, and Mindfulness: Investigating the Influence of Mindfulness Practice in Design Education', you have the opportunity to be credited for your contributions to this research by having your name featured in the Master's thesis report and exhibition. The exhibition will likely be in August 2015, and the report document available by September 2015.

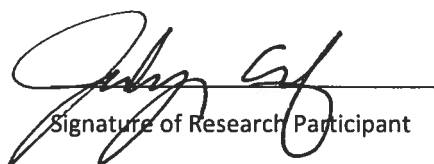
**Please indicate by typing 'X' on the line below, that you would like to be acknowledged for your participation in this research:**

☒ Statements from interview

**My signature on this Consent for Acknowledgement form means that:**

I want my name used to acknowledge my participation in this research. By default, if you do not sign this form your information will be anonymous.

**Please sign your name and write it exactly how you would like it to be used below.**

  
Signature of Research Participant

April 9, 2015  
Date

Judy Armstrong  
Printed Name

If you have any further questions regarding this study, please do not hesitate to contact me, Justin Pritchard at [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), or my graduate supervisor Susan Colberg at [scolberg@ualberta.ca](mailto:scolberg@ualberta.ca)

A COPY OF THIS DOCUMENT SHOULD BE GIVEN TO THE PARTICIPANT.

## CONSENT FOR ACKNOWLEDGEMENT FORM

### Semi-Structured Interviews

**Study Title:** Ideation, Creativity, and Mindfulness: Investigating the Influence of Mindfulness Practice in Design Education

**Principal Investigator:** Justin Pritchard, University of Alberta, [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), (780) 862-9357

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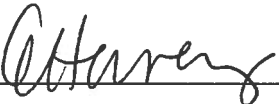
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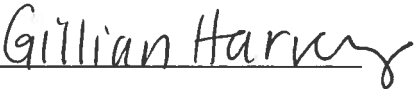
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Signature of Research Participant



Date



Printed Name

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 Statements from interview

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**Please sign your name and write it exactly how you would like it to be used below.**

  
Signature of Research Participant

April 16, 2015  
Date

Andrea Van Der Ree  
Printed Name

If you have any further questions regarding this study, please do not hesitate to contact me, Justin Pritchard at [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), or my graduate supervisor Susan Colberg at [scolberg@ualberta.ca](mailto:scolberg@ualberta.ca)

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Signature of Research Participant

  
Date

  
Printed Name

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X Statements from interview

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I want my name used to acknowledge my participation in this research. By default, if you do not sign this form your information will be anonymous.

**Please sign your name and write it exactly how you would like it to be used below.**

Michelle Johnston

Signature of Research Participant

March 24, 2015

Date

Michelle Johnston

Printed Name

If you have any further questions regarding this study, please do not hesitate to contact me, Justin Pritchard at [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), or my graduate supervisor Susan Colberg at [scolberg@ualberta.ca](mailto:scolberg@ualberta.ca)

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**Please indicate by typing 'X' on the line below, that you would like to be acknowledged for your participation in this research:**

X Statements from interview *AT THE DISCRETION OF THE INVESTIGATOR.*

**My signature on this Consent for Acknowledgement form means that:**

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**Please sign your name and write it exactly how you would like it to be used below.**



Signature of Research Participant

*MARCH 25/15*

Date

Printed Name

*I UNDERSTAND  
THAT THE  
INVESTIGATOR  
WILL E-MAIL MY  
STATEMENTS TO  
ME TO VERIFY  
ACCURACY.*

If you have any further questions regarding this study, please do not hesitate to contact me, Justin Pritchard at [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), or my graduate supervisor Susan Colberg at [scolberg@ualberta.ca](mailto:scolberg@ualberta.ca)

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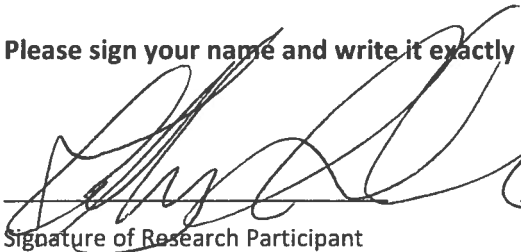
☒

Statements from interview

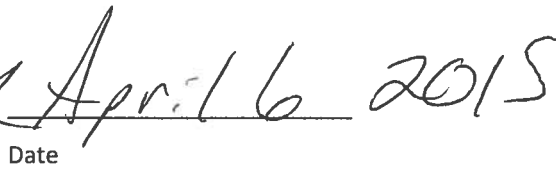
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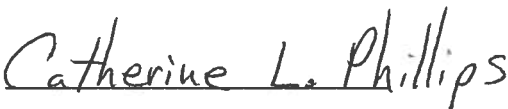
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Signature of Research Participant



Date



Printed Name

If you have any further questions regarding this study, please do not hesitate to contact me, Justin Pritchard at [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), or my graduate supervisor Susan Colberg at [scolberg@ualberta.ca](mailto:scolberg@ualberta.ca)

A COPY OF THIS DOCUMENT SHOULD BE GIVEN TO THE PARTICIPANT.



**CONSENT FORM**  
**Exploratory Study**

**Study Title:** Ideation, Creativity, and Mindfulness: Investigating the Influence of Mindfulness Practice in Design Education  
**Principal Investigator:** Justin Pritchard, University of Alberta, [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), (780) 862-9357

---

Do you understand that you have been asked to be in a research study?	<input checked="" type="radio"/> Yes	No
Have you read and received a copy of the attached information sheet?	<input checked="" type="radio"/> Yes	No
Do you understand the benefits and risks involved in taking part in this research?	<input checked="" type="radio"/> Yes	No
Have you had an opportunity to ask questions and discuss this research?	<input checked="" type="radio"/> Yes	No
Do you understand that you are free to refuse to participate, or to withdraw from the research activity at any time without consequence?	<input checked="" type="radio"/> Yes	No
Do you understand that you can change your mind after you participate, and withdraw your comments, visual explorations, and photographs 1-month after the research activity?	<input checked="" type="radio"/> Yes	No
Has the issue of confidentiality been explained to you? Do you understand who will have access to your information?	<input checked="" type="radio"/> Yes	No
Do you understand the anonymity cannot be guaranteed within a group setting?	<input checked="" type="radio"/> Yes	No
Do I have permission to take photos of you?	<input checked="" type="radio"/> Yes	No
Do you choose to be identified with photos of you? If you answer YES, please fill out a Consent for Acknowledgement form.	<input checked="" type="radio"/> Yes	No
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Do you choose to be acknowledged for your participation in this research? If you answer YES, please fill out a Consent for Acknowledgement form.	<input checked="" type="radio"/> Yes	No

This study was explained to me by: Justin Pritchard

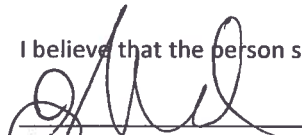
I have read and understand the attached information letter and agree to take in this study:

  
\_\_\_\_\_  
Signature of Research Participant

26. 3. 15  
\_\_\_\_\_  
Date

Devaki Ajit Joshi  
\_\_\_\_\_  
Printed Name

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

  
\_\_\_\_\_  
Signature of Investigator

March 26, 2015  
\_\_\_\_\_  
Date

A COPY OF THIS DOCUMENT SHOULD BE GIVEN TO THE PARTICIPANT.

## CONSENT FORM

### Exploratory Study

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Do you choose to be acknowledged for your participation in this research? If you answer YES, please fill out a Consent for Acknowledgement form.	<input checked="" type="radio"/> Yes	No

This study was explained to me by: Justin

I have read and understand the attached information letter and agree to take in this study:

Jiao  
Signature of Research Participant

5.12.2015  
Date

Jiao Wang  
Printed Name

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

[Signature]  
Signature of Investigator

May 12, 2015  
Date

A COPY OF THIS DOCUMENT SHOULD BE GIVEN TO THE PARTICIPANT.

**CONSENT FORM**  
**Exploratory Study**

**Study Title:** Ideation, Creativity, and Mindfulness: Investigating the Influence of Mindfulness Practice in Design Education  
**Principal Investigator:** Justin Pritchard, University of Alberta, [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), (780) 862-9357

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Do you understand that you have been asked to be in a research study?	<input checked="" type="radio"/> Yes	No
Have you read and received a copy of the attached information sheet?	<input checked="" type="radio"/> Yes	No
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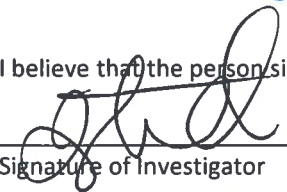
  
Signature of Research Participant

2015-05-12

Date

Anson Wong  
Printed Name

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

  
Signature of Investigator

May 12, 2015

Date

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**CONSENT FORM**  
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Do you choose to be acknowledged for your participation in this research? If you answer YES, please fill out a Consent for Acknowledgement form.	<input checked="" type="radio"/> Yes	No

This study was explained to me by: Justin.

I have read and understand the attached information letter and agree to take in this study:

  
\_\_\_\_\_  
Signature of Research Participant

\_\_\_\_\_  
Date

March 26, 2015

\_\_\_\_\_  
Printed Name

Travis Holmes

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

  
\_\_\_\_\_  
Signature of Investigator

\_\_\_\_\_  
Date

March 26, 2015

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This study was explained to me by: Justin Pritchard

I have read and understand the attached information letter and agree to take in this study:

  
Signature of Research Participant

Date

Apr 28, 2015

Adam McKentcher  
Printed Name

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

  
Signature of Investigator

Date

April 28, 2015

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**CONSENT FORM**  
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Do you choose to be acknowledged for your participation in this research? If you answer YES, please fill out a Consent for Acknowledgement form.	Yes	<input checked="" type="radio"/> No

This study was explained to me by: Justin

I have read and understand the attached information letter and agree to take in this study:

April 28, 2015  
Date

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

[Signature]  
Signature of Investigator

April 28, 2015  
Date

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**CONSENT FORM**  
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Have you read and received a copy of the attached information sheet?	<input checked="" type="radio"/> Yes	No
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Do you choose to be identified with photos of you? If you answer YES, please fill out a Consent for Acknowledgement form.	<input checked="" type="radio"/> Yes	No
Do I have permission to use your visual explorations as part of my Master's thesis report, exhibition, and/or other other presentations?	<input checked="" type="radio"/> Yes	No
Do I have permission to use feedback from the questionnaire as part of my Master's thesis report, exhibition, and/or other other presentations?	<input checked="" type="radio"/> Yes	No
Do you choose to be acknowledged for your participation in this research? If you answer YES, please fill out a Consent for Acknowledgement form.	<input checked="" type="radio"/> Yes	No

This study was explained to me by: Justin Pritchard

*doesn't matter.*

I have read and understand the attached information letter and agree to take in this study:

Deprise Hutton

Signature of Research Participant

April 28/15

Date

Deprise Hutton

Printed Name

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

[Signature]

Signature of Investigator

April 28, 2015

Date

A COPY OF THIS DOCUMENT SHOULD BE GIVEN TO THE PARTICIPANT.

## CONSENT FORM

### Exploratory Study

**Study Title:** Ideation, Creativity, and Mindfulness: Investigating the Influence of Mindfulness Practice in Design Education  
**Principal Investigator:** Justin Pritchard, University of Alberta, [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), (780) 862-9357

Do you understand that you have been asked to be in a research study?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Have you read and received a copy of the attached information sheet?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Do you understand the benefits and risks involved in taking part in this research?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Have you had an opportunity to ask questions and discuss this research?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Do you understand that you are free to refuse to participate, or to withdraw from the research activity at any time without consequence?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Do you understand that you can change your mind after you participate, and withdraw your comments, visual explorations, and photographs 1-month after the research activity?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Has the issue of confidentiality been explained to you? Do you understand who will have access to your information?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Do you understand the anonymity cannot be guaranteed within a group setting?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Do I have permission to take photos of you?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Do you choose to be identified with photos of you? If you answer YES, please fill out a Consent for Acknowledgement form.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Do I have permission to use your visual explorations as part of my Master's thesis report, exhibition, and/or other presentations?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Do I have permission to use feedback from the questionnaire as part of my Master's thesis report, exhibition, and/or other presentations?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Do you choose to be acknowledged for your participation in this research? If you answer YES, please fill out a Consent for Acknowledgement form.	<input checked="" type="radio"/> Yes	<input type="radio"/> No

This study was explained to me by: Justin

\*Participant did not fill out or sign 'Consent for Acknowledgement Form'

I have read and understand the attached information letter and agree to take in this study:

T Gould  
Signature of Research Participant

Apr. 28 / 15  
Date

Treene Gould  
Printed Name

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

[Signature]  
Signature of Investigator

April 28 2015  
Date

A COPY OF THIS DOCUMENT SHOULD BE GIVEN TO THE PARTICIPANT.

Have you had an opportunity to ask questions and discuss this research?

Do you understand that you may be asked to participate in research activities at any time without compensation?

Do you understand that you can change your mind after you participate, and withdraw your comments, visual explorations, and drawings that I request after the research you are in?

Has the issue of confidentiality been explained to you? Do you understand what will be shared in your interview?

Do you understand the anonymity cannot be guaranteed within a group setting?

Do I have permission to take photos of you?

Do you choose to be identified with photos of you? If you answer YES, please fill out a Consent for Acknowledgement form.

Do I have permission to use your photo's explorations as part of my Master's thesis report, exhibition, and/or other other presentations?

Do I have permission to use feedback from the questions as part of my Master's thesis report, exhibition, and/or other other presentations?

Do you choose to be acknowledged for your participation in this research? If you answer YES, please fill out a Consent for Acknowledgement form.

This study was explained to me by: T Gould



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**Principal Investigator:** Justin Pritchard, University of Alberta, [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), (780) 862-9357

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**Please indicate by typing 'X' on the line below, that you would like to be acknowledged for your participation in this research:**



Comments from questionnaire



Photographs taken during workshop

**My signature on this Consent for Acknowledgement form means that:**

I want my name used to acknowledge my participation in this research. By default, if you do not sign this form your information will be anonymous.

**Please sign your name and write it exactly how you would like it to be used below.**

Signature of Research Participant

26.3.15

Date

Devaki Joshi.

Printed Name

If you have any further questions regarding this study, please do not hesitate to contact me, Justin Pritchard at [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), or my graduate supervisor Susan Colberg at [scolberg@ualberta.ca](mailto:scolberg@ualberta.ca)

A COPY OF THIS DOCUMENT SHOULD BE GIVEN TO THE PARTICIPANT.

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**Please indicate by typing 'X' on the line below, that you would like to be acknowledged for your participation in this research:**

☒ Comments from questionnaire

☒ Photographs taken during workshop

**My signature on this Consent for Acknowledgement form means that:**

I want my name used to acknowledge my participation in this research. By default, if you do not sign this form your information will be anonymous.

**Please sign your name and write it exactly how you would like it to be used below.**

Jiao  
Signature of Research Participant

5.12, 2015  
Date

Jiao Wang  
Printed Name

If you have any further questions regarding this study, please do not hesitate to contact me, Justin Pritchard at [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), or my graduate supervisor Susan Colberg at [scolberg@ualberta.ca](mailto:scolberg@ualberta.ca)

A COPY OF THIS DOCUMENT SHOULD BE GIVEN TO THE PARTICIPANT.



Justin Pritchard <jpritcha@ualberta.ca>

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## MDes

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**Jiao Wang** <jwang@ualberta.ca>  
To: Justin Pritchard <jpritcha@ualberta.ca>

Wed, Aug 19, 2015 at 9:22 PM

Hi Justin,

I would be very happy if you include them!!!  
I the pic of the panda and a boy shows on your wall is also my work! :) ahahah! I like your layout very much! it is looking goooooooooood!

I feel very happy you showed them. :)

See you tomorrow!

Jiao

2015-08-19 18:23 GMT-06:00 Justin Pritchard <jpritcha@ualberta.ca>:

Hey Jiao,

Hope everything is coming together for you!

So, I am just finalizing my thesis report and display for the grad show exhibition, and it's all wrapping up nicely. I was hoping to include your logotype explorations in a digital display and in the appendices of the report— but because your name is part the sketches, I thought it would best to request permission first.

Do you mind if I include them? If not, not worries, but just let me know.

Cheers,  
Justin

## CONSENT FOR ACKNOWLEDGEMENT FORM

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☒ Comments from questionnaire

☒ Photographs taken during workshop

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**Please sign your name and write it exactly how you would like it to be used below.**



Signature of Research Participant

2015-05-12

Date

Anson Wong

Printed Name

If you have any further questions regarding this study, please do not hesitate to contact me, Justin Pritchard at [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), or my graduate supervisor Susan Colberg at [scolberg@ualberta.ca](mailto:scolberg@ualberta.ca)

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**Please indicate by typing 'X' on the line below, that you would like to be acknowledged for your participation in this research:**

X

Comments from questionnaire

X

Photographs taken during workshop

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I want my name used to acknowledge my participation in this research. By default, if you do not sign this form your information will be anonymous.

**Please sign your name and write it exactly how you would like it to be used below.**

Travis

Signature of Research Participant

March 26, 2015

Date

Travis Holmes

Printed Name

If you have any further questions regarding this study, please do not hesitate to contact me, Justin Pritchard at [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), or my graduate supervisor Susan Colberg at [scolberg@ualberta.ca](mailto:scolberg@ualberta.ca)

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☒ Comments from questionnaire

☒ Photographs taken during workshop

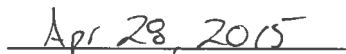
**My signature on this Consent for Acknowledgement form means that:**

I want my name used to acknowledge my participation in this research. By default, if you do not sign this form your information will be anonymous.

**Please sign your name and write it exactly how you would like it to be used below.**



Signature of Research Participant



Date



Printed Name

If you have any further questions regarding this study, please do not hesitate to contact me, Justin Pritchard at [jpritcha@ualberta.ca](mailto:jpritcha@ualberta.ca), or my graduate supervisor Susan Colberg at [scolberg@ualberta.ca](mailto:scolberg@ualberta.ca)

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**Please indicate by typing 'X' on the line below, that you would like to be acknowledged for your participation in this research:**

☒

Comments from questionnaire

☐

Photographs taken during workshop

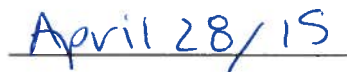
**My signature on this Consent for Acknowledgement form means that:**

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Signature of Research Participant



Date



Printed Name

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A COPY OF THIS DOCUMENT SHOULD BE GIVEN TO THE PARTICIPANT.



Justin Pritchard <jpritcha@ualberta.ca>

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## Mindfulness + Ideation Tomorrow!

---

**Deprise Hutton** <[redacted]>  
To: Justin Pritchard <jpritcha@ualberta.ca>

Wed, Aug 19, 2015 at 7:37 PM

Hi Justin,  
I am so glad to hear your report is going well! You are absolutely able to use my logo type with my name!

I hope your summer is going well as well.

Deprise

On Wednesday, August 19, 2015, Justin Pritchard <jpritcha@ualberta.ca> wrote:  
Hey Deprise,

Hope your summer is going well!

So, I am just finalizing my thesis report and display for the grad show exhibition, and it's all wrapping up nicely. I was hoping to include your logotype explorations in a digital display and in the appendices of the report— but because your name is part the sketches, I thought it would best to request permission first.

Do you mind if I include them? If not, not worries, but just let me know.

Cheers,  
Justin



## **7.24 WORKSHOP DELIVERABLES**

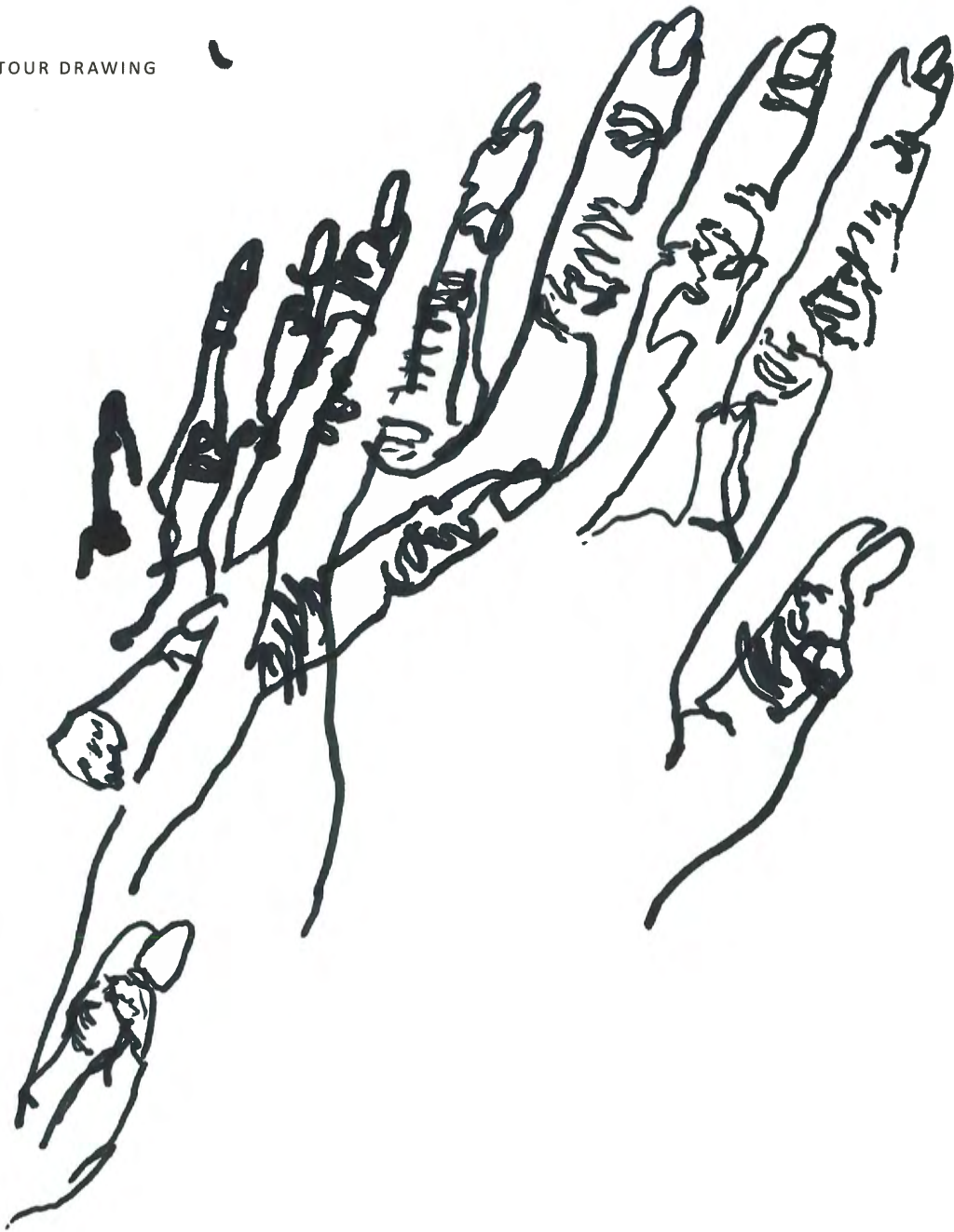
Blind-contour drawing meditation

Aesthetic/college meditation

Free-drawing meditation



















**We've got the inside  
on outside protection.**

Architect Wendell

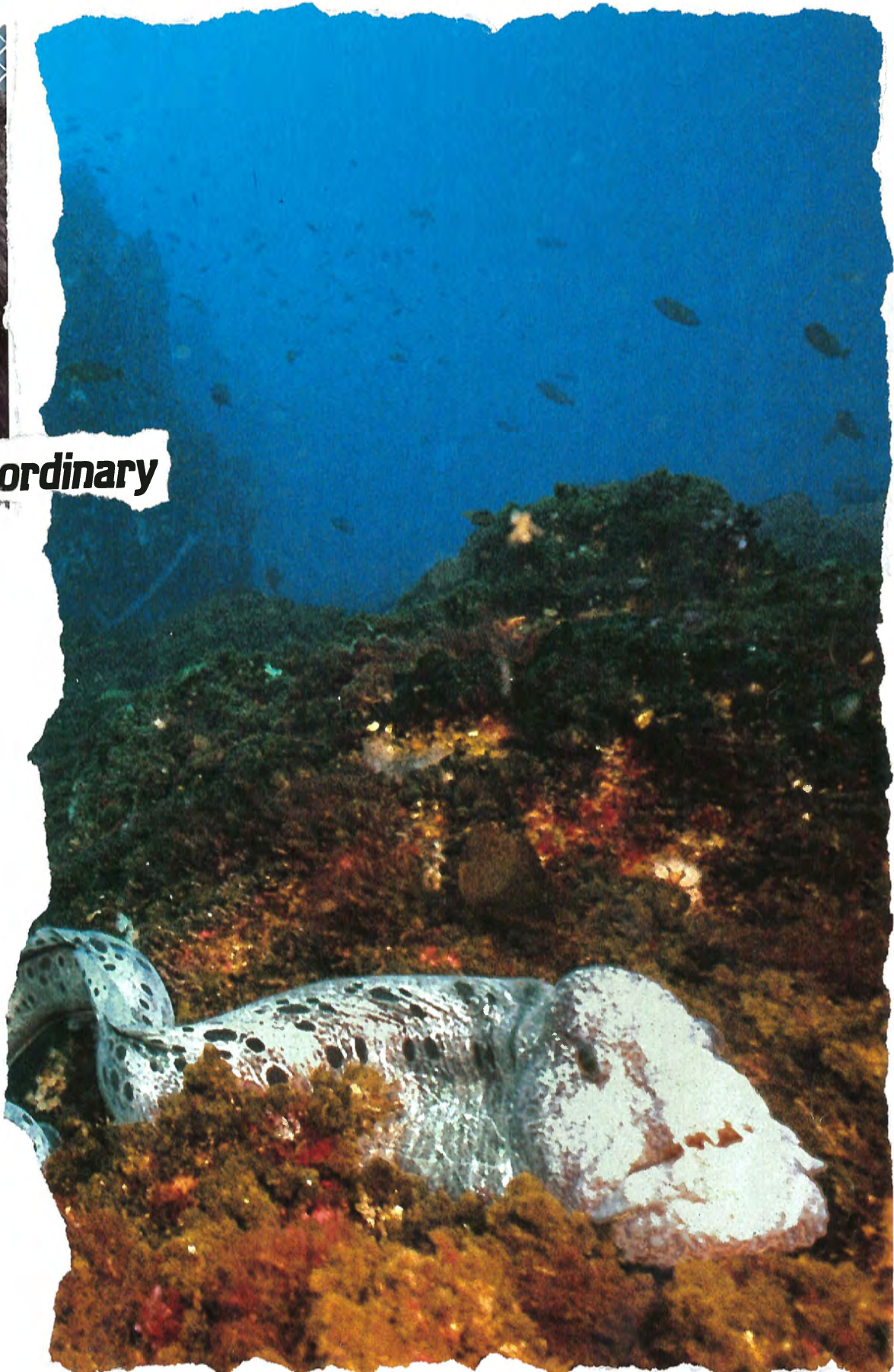
**Do-it-yourself** remains a popular approach here, not so much from necessity as from a sense of pride and cultural continuity.







**extraordinary**





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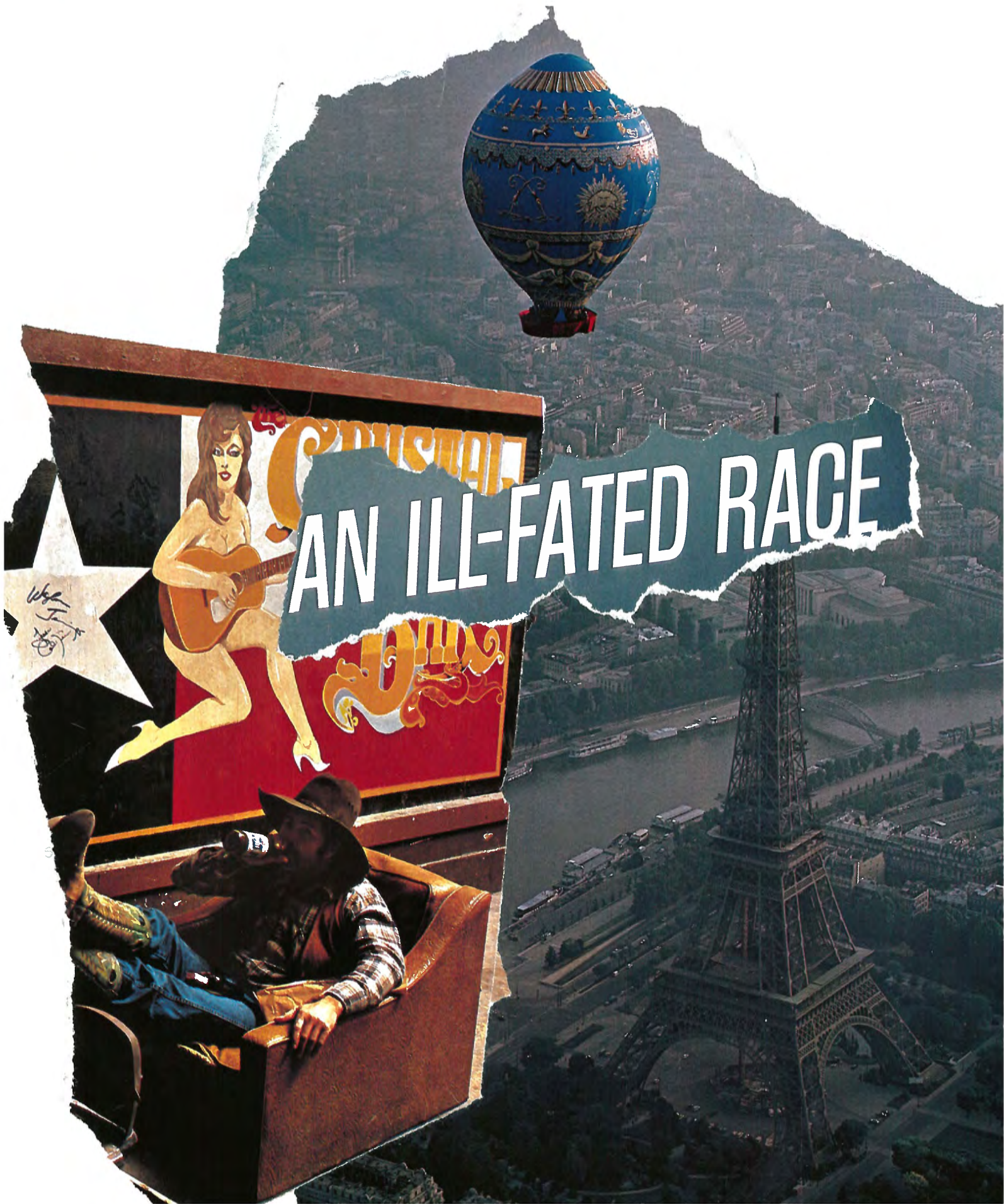
off Turkey some  
archaeologist George F. ... excavate  
with photographer Bill Curtsinger, reports  
an unprecedented trove of pottery, weapons, and  
copper and tin ingots.

## Sea Change in the Sea Islands 735

Cultural traditions brought from Africa and a  
Creole language called Gullah erode ... the  
impact of resort development along the  
Carolina and Georgia coast  
finds. Photogr...











Detach Here ▼







# Broken

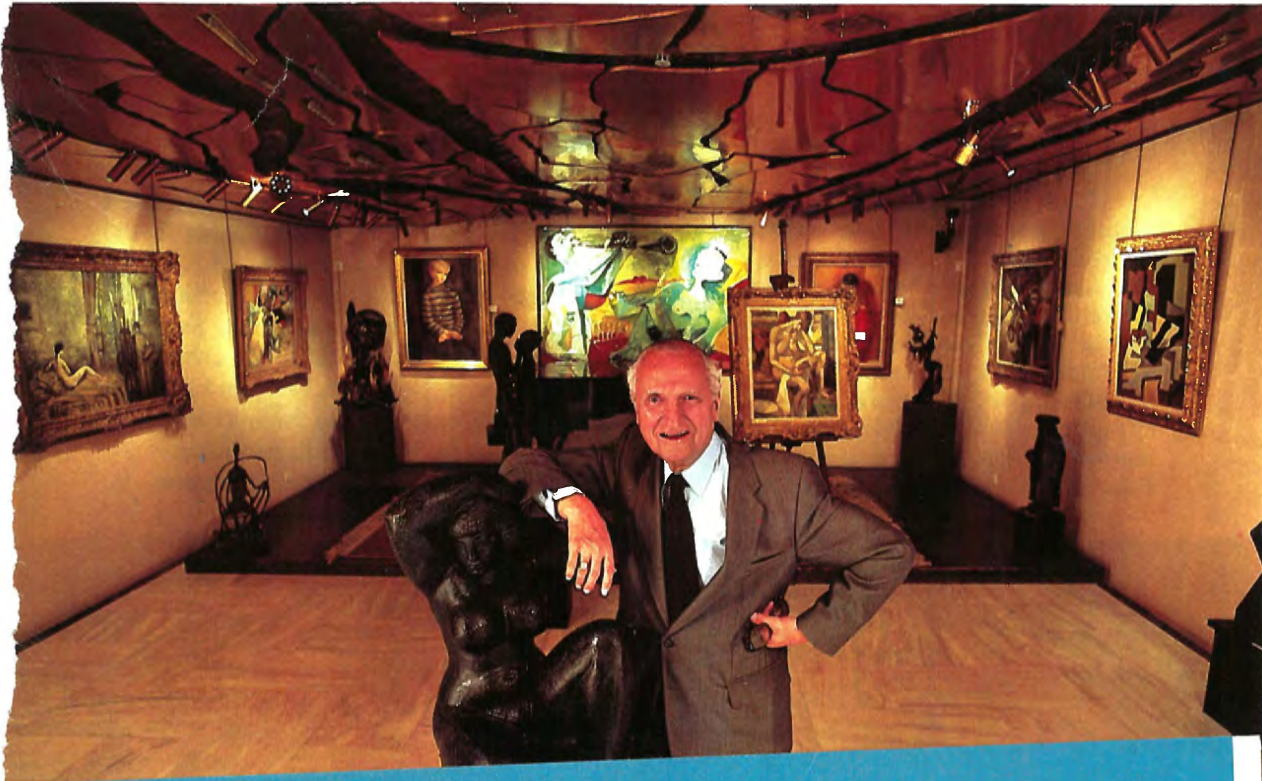
RDS ASSISTANT EDITOR      Photographs by GERD LUDWIG

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...to that traged





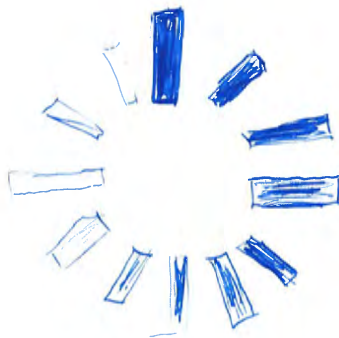
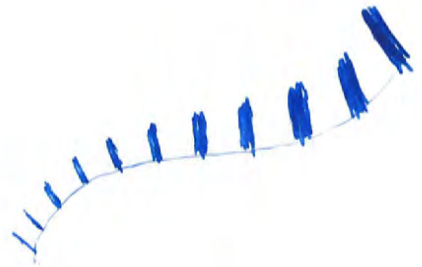
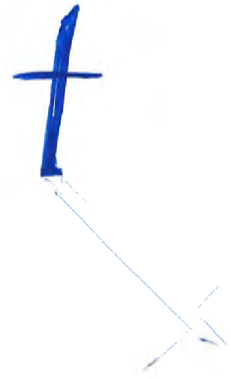




Picasso's "L'Aubade" dominates the just ... of a room whose copper ceiling designed as an abstract work by sculptor Alvaro Vallazza.

in metalworking alone.





+29

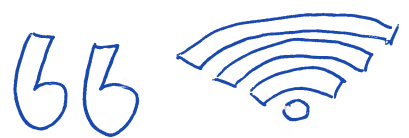
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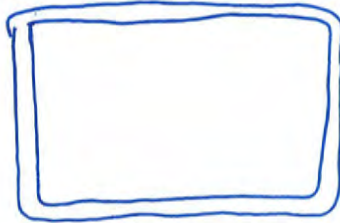
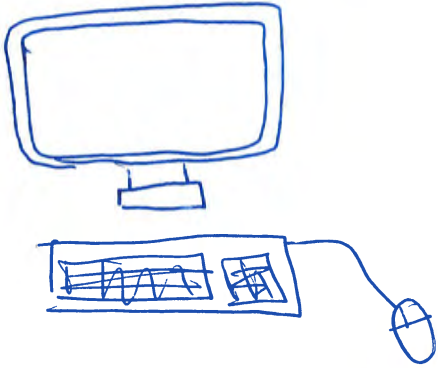


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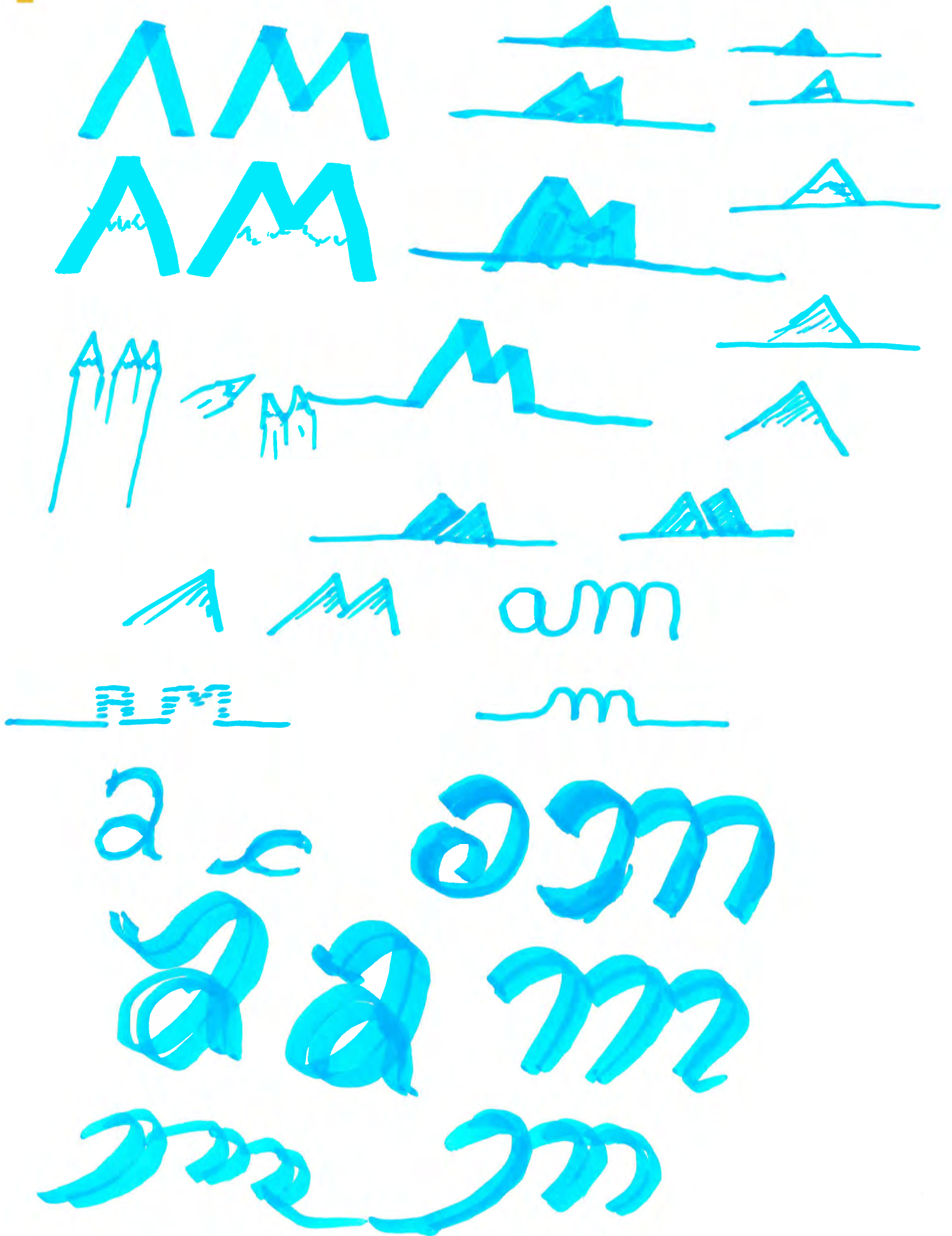
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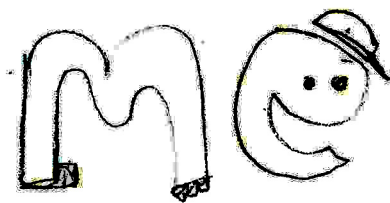
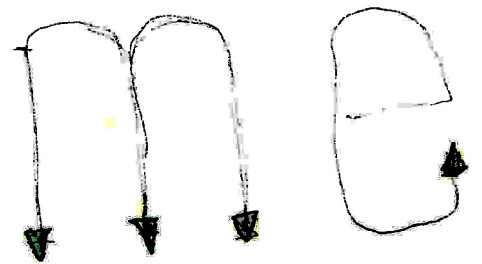
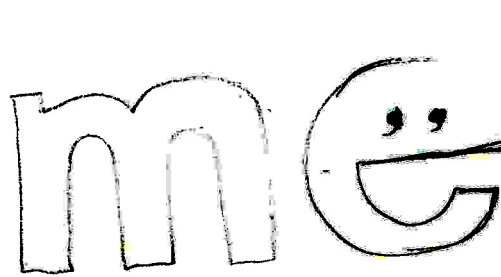
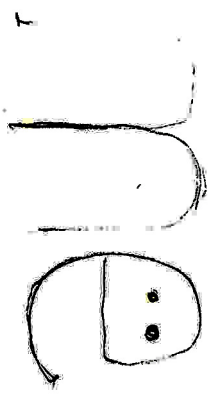
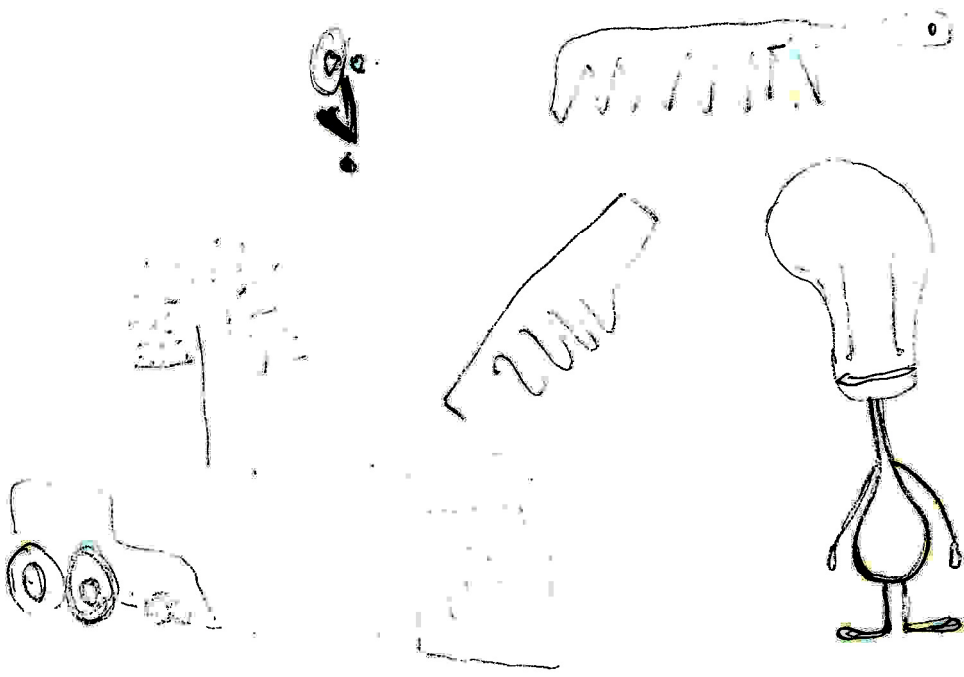
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## 7.25 QUESTIONNAIRES

## MINDFULNESS + IDEATION

### Workshop Participant Survey

Circle the appropriate answer below.

I am in the following year of college and/or university:

1st

2nd

3rd

4th

5th (or more)

Circle the appropriate answer below.

How many *design courses* have you completed in college and/or university?

1-5

5-10

10-15

15-20

20+

Circle the appropriate answer below.

I have taken the follow types of design courses:

Industrial Design

Visual Communication Design

Industrial Design + Visual Communication Design

Circle the appropriate answer below.

In comparison to right before starting the activities, my level of mental clarity is:

Greater now

About the same

Lesser now

I don't know

Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how easy was it for you to ideate and create visual explorations.



Did you have any creative insights, or specific moments that you felt creative, during the study? If so, at what points in the study did this take place?

*Towards the end of the free-drawing exercise.*

If applicable, what factors might have led to these creative insights?

*Time to clear out thoughts of the day + put down earlier ideas.*

Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how satisfied are you with your visual explorations?



*I would need more time exploring to come up with something satisfying.*

Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how effective do you think the activities were at helping you generate ideas?



Please leave any additional comments that you might have about the study in the space below.

I personally would need more time exploring for the free-drawing, but I strongly feel that mindfulness & meditation are useful for being centred in one's self and for getting to more honest & authentic ideations. It helps one to clear out daily life concerns before embarking on creative matters.

#### THANK YOU FOR PARTICIPATING IN THIS STUDY.

Before leaving, please put your questionnaire, consent forms, and explorations in the provided folder and submit it in the green tray at the front of the room.

## MINDFULNESS + IDEATION

### Workshop Participant Survey

Circle the appropriate answer below.

I am in the following year of college and/or university:

1st

2nd

3rd

4th

5th (or more)

4th of design  
but 5 in art in  
total.

Circle the appropriate answer below.

How many *design courses* have you completed in college and/or university?

1-5

5-10

10-15

15-20

20+

Circle the appropriate answer below.

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Industrial Design + Visual Communication Design

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Greater now

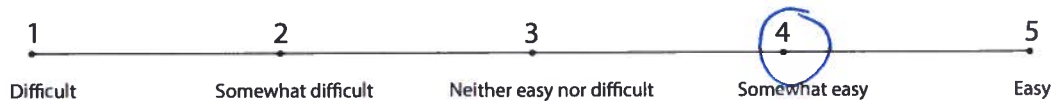
About the same

Lesser now

I don't know

Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1-5, how easy was it for you to ideate and create visual explorations.



Usually I am all over the place with my ideas, and feel that some ideas are not even worth writing down. But after the exercises I was open to everything & thought outside of the box.

Did you have any creative insights, or specific moments that you felt creative, during the study? If so, at what points in the study did this take place?

Yes! Especially during the exercises at the table. I found the first exercise helped place me in the room mentally. Then the table exercises allowed me to look at things in new ways & more openly.

If applicable, what factors might have led to these creative insights?

Just being mentally here. Instead of planning what I'm doing after, I heard creativity happens best when you are mindful and give yourself time to concentrate physically & mentally.

Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1-5, how satisfied are you with your visual explorations?



Obviously none of them are amazing, but it definitely helped me to explore new variations, options & routes.

Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how effective do you think the activities were at helping you generate ideas?



I found the activities helped me look at things differently (like my hand). And because I knew they were for fun I had no pressure. Now I need to find a way to feel unpressured in my work.

Please leave any additional comments that you might have about the study in the space below.

I found this process very eye opening. I need to be more mindful within my day to day life which would help my creativity.

Thank you for this!



#### THANK YOU FOR PARTICIPATING IN THIS STUDY.

Before leaving, please put your questionnaire, consent forms, and explorations in the provided folder and submit it in the green tray at the front of the room.



## MINDFULNESS + IDEATION

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5th (or more)

Circle the appropriate answer below.

How many *design courses* have you completed in college and/or university?

1-5

5-10

10-15

15-20

20+

Circle the appropriate answer below.

I have taken the follow types of design courses:

Industrial Design

Visual Communication Design

Industrial Design + Visual Communication Design

Circle the appropriate answer below.

In comparison to right before starting the activities, my level of mental clarity is:

Greater now

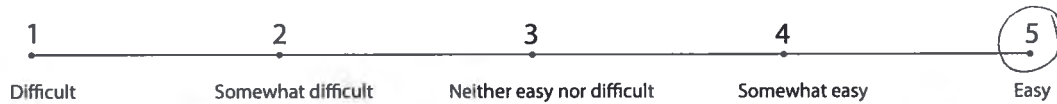
About the same

Lesser now

I don't know

Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how easy was it for you to ideate and create visual explorations.



I would say it was very easy. I felt relaxed ~~and~~ with no pressure to perform.

Did you have any creative insights, or specific moments that you felt creative, during the study? If so, at what points in the study did this take place?

During the stages of meditation where we let our mind wander, and throughout the times where we turned more hands on in our meditation.

If applicable, what factors might have led to these creative insights?

I think being more calm and focused in the present really helped, and leaving behind the stresses and other concerns of the day.

Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how satisfied are you with your visual explorations?

(answered on other pg)

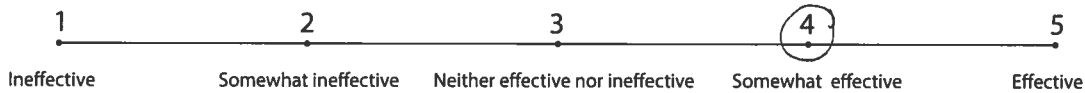


I think the activities were very effective at helping me generate ideas. The sessions guided me to consider ideas that were beyond myself, and explore further than I would have on my own.

Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how effective do you think the activities were at helping you generate ideas?

(answered on  
other page)



I was satisfied with the results but felt they were less about generating actual concrete ideas than being more like my own 'brain' time where I was able to explore without any pressures.

Please leave any additional comments that you might have about the study in the space below.

#### THANK YOU FOR PARTICIPATING IN THIS STUDY.

Before leaving, please put your questionnaire, consent forms, and explorations in the provided folder and submit it in the green tray at the front of the room.

2  
No, thank you!

## MINDFULNESS + IDEATION

### Workshop Participant Survey

Circle the appropriate answer below.

I am in the following year of college and/or university:

1st

2nd

3rd

4th

5th (or more)

Circle the appropriate answer below.

How many *design courses* have you completed in college and/or university?

1-5

5-10

10-15

15-20

20+

Circle the appropriate answer below.

I have taken the follow types of design courses:

Industrial Design

Visual Communication Design

Industrial Design + Visual Communication Design

Circle the appropriate answer below.

In comparison to right before starting the activities, my level of mental clarity is:

Greater now

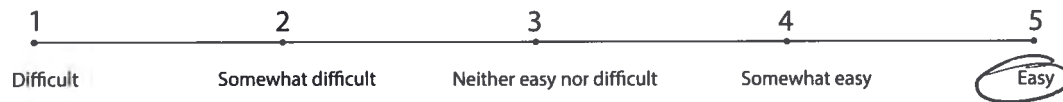
About the same

Lesser now

I don't know

Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how easy was it for you to ideate and create visual explorations.



Did you have any creative insights, or specific moments that you felt creative, during the study? If so, at what points in the study did this take place?

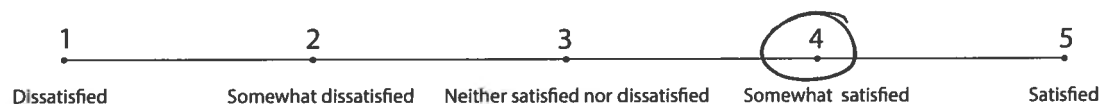
During the second exercise (collage), and especially during the free-drawing, I felt a great deal of freedom to explore details, and ~~not~~ managed to avoid bogging down.

If applicable, what factors might have led to these creative insights?

Definitely felt like I was not over-thinking things, I was able to see designs / ideas for what they were, and embrace them without feeling self-conscious

Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

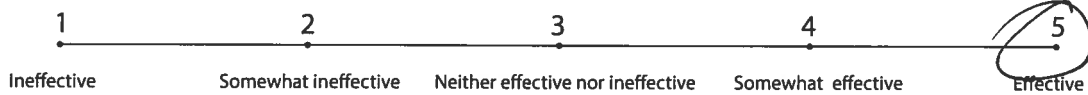
On a scale from 1–5, how satisfied are you with your visual explorations?



I would have enjoyed exploring the free drawing exercise longer.

Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how effective do you think the activities were at helping you generate ideas?



I believe that these exercises helped to reduce/remove a mental filter that may prevent me from putting ideas down on paper.

Please leave any additional comments that you might have about the study in the space below.

Felt as though the exercise was very helpful, and will definitely be exploring concepts/topics related to mindfulness in the future - especially in a design context.

#### THANK YOU FOR PARTICIPATING IN THIS STUDY.

Before leaving, please put your questionnaire, consent forms, and explorations in the provided folder and submit it in the green tray at the front of the room.

## MINDFULNESS + IDEATION

### Workshop Participant Survey

Circle the appropriate answer below.

I am in the following year of college and/or university:

1st

2nd

3rd

4th

5th (or more)

Circle the appropriate answer below.

How many *design courses* have you completed in college and/or university?

1-5

5-10

10-15

15-20

20+

Circle the appropriate answer below.

I have taken the follow types of design courses:

Industrial Design

Visual Communication Design

Industrial Design + Visual Communication Design

Circle the appropriate answer below.

In comparison to right before starting the activities, my level of mental clarity is:

Greater now

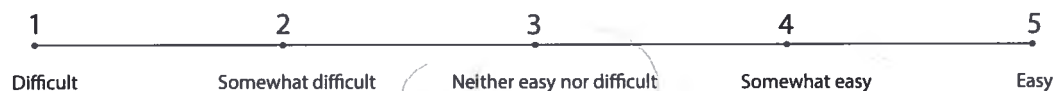
About the same

Lesser now

I don't know

Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how easy was it for you to ideate and create visual explorations.



Starting was a challenge  
but it got easier - found the groove

Did you have any creative insights, or specific moments that you felt creative, during the study? If so, at what points in the study did this take place?

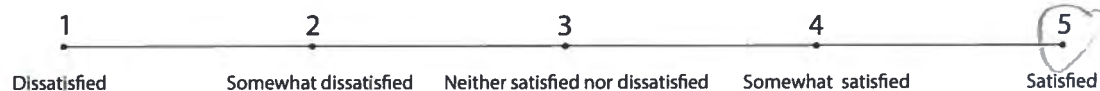
- in the collage exercise it was an interesting challenge to connect the images, but I found a result that worked creatively. the logotype/wordmark iterations
- I suppose, creatively. the logotype/wordmark iterations

If applicable, what factors might have led to these creative insights?

- working with a found image/type
  - calm - lack of pressure.
- felt creatively productive

Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how satisfied are you with your visual explorations?

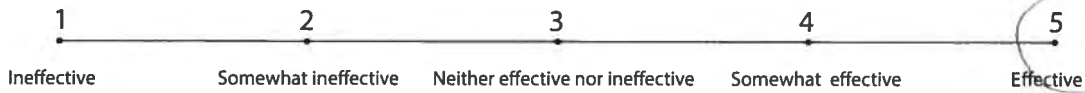


the results were surprising  
and unexpected.



Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how effective do you think the activities were at helping you generate ideas?



I was happy with the results, but the stakes were low. I would be interested to apply the techniques to a real-life project

Please leave any additional comments that you might have about the study in the space below.

#### THANK YOU FOR PARTICIPATING IN THIS STUDY.

Before leaving, please put your questionnaire, consent forms, and explorations in the provided folder and submit it in the green tray at the front of the room.

## MINDFULNESS + IDEATION

### Workshop Participant Survey

Circle the appropriate answer below.

I am in the following year of college and/or university:

1st

2nd

3rd

4th

5th (or more)

Circle the appropriate answer below.

How many *design courses* have you completed in college and/or university?

1-5

5-10

10-15

15-20

20+

Circle the appropriate answer below.

I have taken the follow types of design courses:

Industrial Design

Visual Communication Design

Industrial Design + Visual Communication Design

Circle the appropriate answer below.

In comparison to right before starting the activities, my level of mental clarity is:

Greater now

*slightly better*

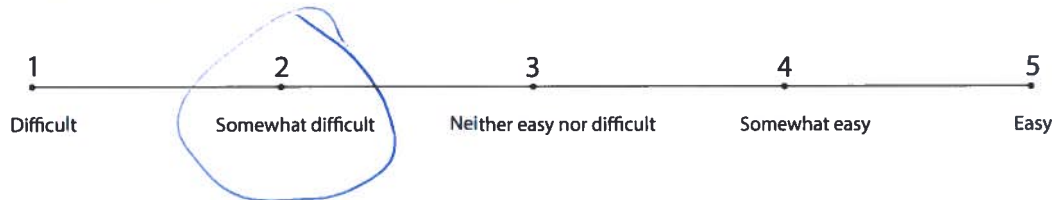
About the same

Lesser now

I don't know

Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how easy was it for you to ideate and create visual explorations.



Did you have any creative insights, or specific moments that you felt creative, during the study? If so, at what points in the study did this take place?

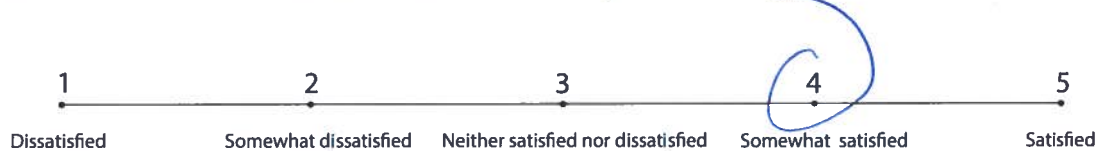
collage & visual identity.

If applicable, what factors might have led to these creative insights?

the act of doing & engaging with the problem at hand  
the ~~bowling~~ music helps

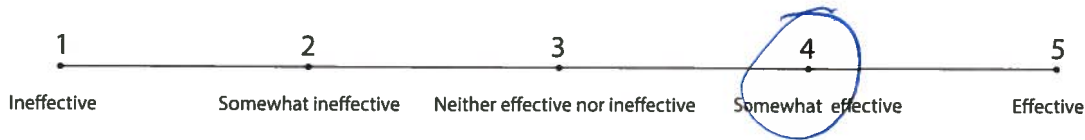
Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how satisfied are you with your visual explorations?



Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how effective do you think the activities were at helping you generate ideas?



Please leave any additional comments that you might have about the study in the space below.

The ritual like design exercise is interesting. As it helps to focus the mind and maintain attention which is much needed and often take for granted.

It's a good reminder for me to pay more attention to the at the moment aspect of design on top of the framework and background studies for design.

**THANK YOU FOR PARTICIPATING IN THIS STUDY.**

Before leaving, please put your questionnaire, consent forms, and explorations in the provided folder and submit it in the green tray at the front of the room.

## MINDFULNESS + IDEATION

### Workshop Participant Survey

Circle the appropriate answer below.

I am in the following year of college and/or university:

1st

☒ 2nd

3rd

4th

☒ 5th (or more)

Circle the appropriate answer below.

How many *design courses* have you completed in college and/or university?

1-5

5-10

10-15

15-20

☒ 20+

Circle the appropriate answer below.

I have taken the follow types of design courses:

☒ Industrial Design

Visual Communication Design

☒ Industrial Design + Visual Communication Design

Circle the appropriate answer below.

In comparison to right before starting the activities, my level of mental clarity is:

☒ Greater now

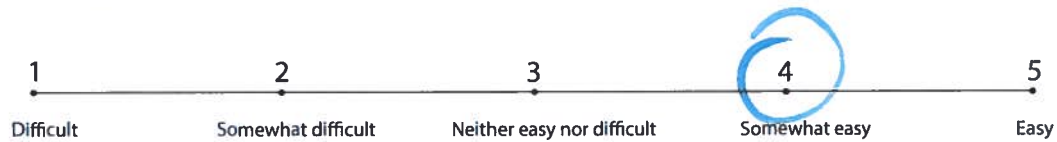
About the same

Lesser now

I don't know

Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how easy was it for you to ideate and create visual explorations.



Did you have any creative insights, or specific moments that you felt creative, during the study? If so, at what points in the study did this take place?

Yes, in the free drawing sessions.

If applicable, what factors might have led to these creative insights?

Having the whole freedom to create anything we want.

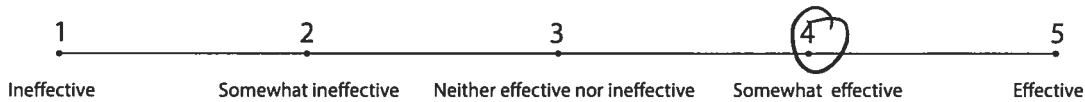
Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how satisfied are you with your visual explorations?



Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how effective do you think the activities were at helping you generate ideas?



Please leave any additional comments that you might have about the study in the space below.

I love the music ~~during the drawing session~~ through out the study.

And I love the breathing excises before, it gives me a clear mind and ~~per~~ peaceful attitude to focus on what I am doing right now.

The reason why I am not ~~so~~ too satisfying with my creation in the freedrawing session, as I only have limited time.

#### THANK YOU FOR PARTICIPATING IN THIS STUDY.

Before leaving, please put your questionnaire, consent forms, and explorations in the provided folder and submit it in the green tray at the front of the room.

## MINDFULNESS + IDEATION

### Workshop Participant Survey

Circle the appropriate answer below.

I am in the following year of college and/or university:

1st

2nd

3rd

4th

5th (or more)

Circle the appropriate answer below.

How many *design courses* have you completed in college and/or university?

1-5

5-10

10-15

15-20

20+

Circle the appropriate answer below.

I have taken the follow types of design courses:

Industrial Design

✓ Visual Communication Design

✓ Industrial Design + Visual Communication Design

Circle the appropriate answer below.

In comparison to right before starting the activities, my level of mental clarity is:

✓ Greater now

About the same

Lesser now

I don't know



Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how easy was it for you to ideate and create visual explorations.



Did you have any creative insights, or specific moments that you felt creative, during the study? If so, at what points in the study did this take place?

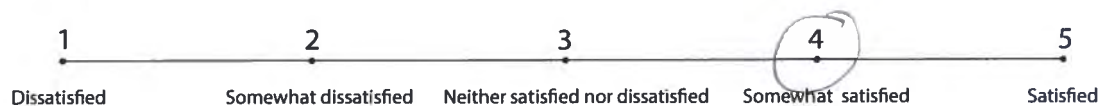
— free drawing activity: it felt that mind and hand worked together

If applicable, what factors might have led to these creative insights?

— Peaceful ~~Mind~~ Mind

Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

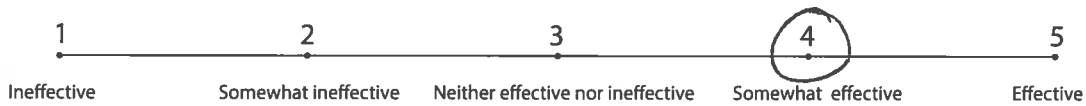
On a scale from 1–5, how satisfied are you with your visual explorations?



Unexpected result with allowing myself to flow with the senses.

Circle the appropriate number below. Use the space below the scale to explain or expand on any thoughts regarding your answer.

On a scale from 1–5, how effective do you think the activities were at helping you generate ideas?



Meditation calmed mind & it felt like there is connection between ~~in~~ your senses & body

Please leave any additional comments that you might have about the study in the space below.

I felt that meditation played a great role in the design / activities. It helped me understand the sense what you sense & embody what I sensed. I did not analyzed what I sensed but experienced & allowed it to flow. I feel ~~th~~ in design, this would help ~~avoid~~ avoid over analyzing during ideation & conceptualization process. This could bring a balance of ~~thin~~ analyzing & sensing.

**THANK YOU FOR PARTICIPATING IN THIS STUDY.**

Before leaving, please put your questionnaire, consent forms, and explorations in the provided folder and submit it in the green tray at the front of the room.

## 7.3 Exhibition

# Ideation, Creativity and Mindfulness:

## Investigating the Influence of Mindfulness Practice on Design Education

### INTRODUCTION

Many people try to find peace in this frantic world, especially in Western culture that values action and accomplishments so highly. One consequence of a busy lifestyle is that our minds are also busy, cluttered, and distracted which hinders our ability to sustain attention and present moment awareness. Whether we are ruminating on the past or planning for the future, it's easy to catch our minds wandering and not in the present moment. Fortunately however, attention can be practiced and one method is through mindfulness meditation. Mindfulness can be understood as an open and accepting awareness of the present moment. It has been practiced for thousands of years and its roots stem back to eastern philosophy, but it has made its way into the mainstream secular world in the last few decades.

This Master of Design thesis project investigated mindfulness practice and its relationship to ideation and creativity within design education. Within the context of design education, students typically use different ideation techniques to help them generate new and creative ideas while designing. The hypothesis I made was that by quieting the mind through the practice of mindfulness meditation, a student may boost his or her creative flow.



Read Below to Practice Mindfulness:

*"The process of understanding what mindfulness is begins with first hand experience..."*

*Notice your eyes engaging with the letters of this text as you read. At the end of this paragraph, see if you can stop and focus on the letters simply as shapes for a minute, as if you were a baby in awe of the varied forms flowing through your eyes. Let your eyes and body relax and take in the text as a work of art, letting go of the need to assign meaning to the words" (Rechtschaffen, 2014).*

### BACKGROUND

#### Ideation and Creativity in Educational Contexts

Students' experience of higher education and their future lives will be enriched if teachers help them recognize, experience, and develop more of their creative potential (Jackson, 2008). This can be combined with traditional academic abilities or what is referred to as "hard systems thinking". A hard systems thinking approach is about defining, analyzing, and resolving problems within a conceptual framework that seeks to create a highly ordered real world. In contrast, "soft systems" view of the world accepts confusion, diversity, and complexity and sees this as a resource and a source of inspiration to orchestrate inquiry and grow new learning.

Design education typically embraces a "soft systems" pedagogical approach. Nevertheless, design instructors should be aware that students in their classrooms might not come from educational backgrounds that foster creativity-based attitudes. Many students have been educated to learn mindlessly, which means that they are stuck in a single, rigid perspective, and are oblivious to alternative ways of knowing (Jonger, 2005). In order to enhance design pedagogy, design educators should continually assess students' aptitude for creativity-based learning and aid them in becoming mindfully engaged in the their learning and the curriculum.

#### Mindfulness Practice and Creativity

Mindfulness is an awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally, to the unfolding of experience moment by moment (Kabat-Zinn 2003). Even though it has gained popularity over the last few decades, its roots go back thousands of years to ancient Buddhist and meditation practices. Kabat-Zinn suggests that mindfulness, being about attention, is of necessity universal and not exclusive to followers of Buddhism.

A well-known program called Mindfulness-Based Stress Reduction has added to its popularity. Some believe that mindfulness practice ameliorates stress by strengthening one's courage and skill to look, to look into discomfort rather than away from it (Calkins, 2005). The practice can be done formally through sitting or walking meditations, or informally by paying close attention to daily activities such as eating, driving and listening (Omidjian and Linhorst, 2008). This can help cultivate a "beginner's mind" which is to look at an object, person or situation with a fresh perspective and curiosity. A beginner's mind helps lead to new possibilities and even creativity. Thus, mindfulness can serve as a basis of creativity, flow, and meaningful engagement with life in its myriad manifestations (Primus, 2012).

#### Mindfulness Practice in Educational Contexts

Deborah Schoeberlein, a grade school teacher who has been integrating mindfulness into her classrooms for over 15 years, suggests that mindfulness practices in the classroom, or mini mindfulness breaks, allow students to pause spontaneously and breathe in order to help create space to cue attention. "Mindfulness boosts re-emerges personal creativity and refines attention, rather than interrupt it," (Schoeberlein, 2009). Richard Barrett, also a grade school teacher, explains that mindfulness in education is important because it expands a student's faculty of attention. This can be done through mindfulness practice and tapping into a "sensing mode" of learning, rather than "thinking mode". This helps untangle the "knots in the mind".

Some researchers of mindfulness in education, or contemplative pedagogy, suggest that without the experience of the isolation of attention when learning the practice, it is difficult to guide students (Barbezat and Bush, 2014). Therefore, educators should have their own practice if they plan to incorporate it into the classroom. Barbezat and Bush also suggest that teachers should allow students to have the freedom to maintain their own beliefs and not require them to believe anything specific in order to engage in the exercises.

## Further Background + Context

### BENEFITS OF MINDFULNESS

Mindfulness can be a tool for cultivating mental clarity, insight, inner calm, well-being, compassion and a range of other personal and transpersonal qualities (Sarath, 2006). Within the context of education, benefits include (Schoeberlein, 2009):

For Teachers:	For Students:
<ul style="list-style-type: none"><li>➢ Improves focus and awareness</li><li>➢ Increases responsiveness to students' needs</li><li>➢ Promotes emotional balance</li><li>➢ Supports stress management and stress reduction</li><li>➢ Supports health</li><li>➢ Enhances classroom climate</li><li>➢ Supports overall well-being</li></ul>	<ul style="list-style-type: none"><li>➢ Supports "readiness to learn"</li><li>➢ Promotes academic performance</li><li>➢ Strengthens attention and concentration</li><li>➢ Reduces anxiety before testing</li><li>➢ Promotes self-reflection and self-learning</li><li>➢ Improves classroom participation by supporting impulse control</li><li>➢ Provides tools to reduce stress</li><li>➢ Enhances social and emotional learning</li><li>➢ Fosters pro-social behaviors and health relationships</li><li>➢ Supports holistic well-being</li></ul>

### KEY TERMS

#### Beginner's Mind

Beginner's mind means to cultivate an attitude of seeing things as if for the first time so as to be able to unforeseen or previously unacknowledged possibilities in experience (Kabot-Zinn, 1990). According to Steff & Steff (2005), the beginner's mind has a sense of playfulness, lightness, and receptivity.

#### Contemplative Pedagogy

"Contemplative pedagogy uses forms of introspection and reflection that allows students to focus internally and find more of themselves in their courses. The types of contemplation are varied, from guided introspection exercises to open-ended multidisciplinary contemplative reading (i.e. lectio divina) to simple moments of quiet, as are the ways in which the practices are integrated into classrooms" (Barbezat & Bush, 2014).

#### Creativity

Being creative means to create new and worthwhile ideas and this could be the creation of either incremental or radical concepts (Pinto, 2015).

#### Ideation

Ideation is the creative process of generating, developing, and communicating new ideas, where an idea is understood as a basic element of thought that can be either visual, concrete, or abstract (Jonson, 2005).

#### Mindfulness

The awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment (Kabot-Zinn, 2003).

#### Mindfulness Practice

Mindfulness practice, also known as mindfulness meditation, has been described as the intentional process of observing, describing, and participating in the present-moment nonjudgmentally. Formal mindfulness practice mainly includes sitting meditation, along with walking meditation, body scan meditation, and yoga. Informal practice refers to bringing mindfulness to daily activities such as eating, driving, washing the dishes, talking on the phone, etc. (Dimidjian and Linehan, 2008).

### MINDFULNESS + ME

I was first introduced to meditation as a way to cope severe and debilitating anxiety in my late teenage years which prevented me from engaging in most social activities and undertaking everyday tasks. The onset of the anxiety was immediate and abrupt and this led me into therapy for an 8-month period of time. My therapist introduced me to basic breathing meditations that were guided by an audiotape and even though my anxiety remained present during meditation practice, I was able to manage my stress and successfully continue my fashion studies at Lethbridge College.

Over a 5-year period of time, I gradually ameliorated and eliminated most, if not all, of my major symptoms. It was not until 2013 that I became acquainted with "mindfulness meditation" during a short visit to the University of Alberta's (U of A) Chula Fair. It was at the fair that I signed up to be a member of the Mindfulness Meditation Student Group (MMSG).

Over the course of the year, I became more involved in mindfulness-related endeavours. I was elected as a President of the MMSG, attended different meditation retreats, enrolled in a course at St. Stephen's College called *Mindfulness for Teachers* and participated in nearly 10 different health and wellness related initiatives on campus. Also, I was able to integrate mindfulness practice in the Design Fundamentals

course that I taught during Fall 2014. In the Spring 2015 term I guest lectured for two different design courses where I led various mindfulness and ideation related practices including free-writing, art-marking and eating meditations. All of these endeavours were recognized by the U of A's Student Union and I, as a mindfulness ambassador on-campus, received the Student Group U of A the Year Award (1 of 400 plus student groups on campus).

While completing the Master of Design coursework, I began to investigate my areas of interest related to mindfulness, creativity and education through several self-directed research projects and courses. During the last semester of my graduate course work, I enrolled in a self-directed design course in order to examine design-based learning environments and techniques for fostering creativity into these settings. One of my findings was that mindfulness, creativity, and student engagement connect together. I became more fascinated by the topics after this investigation.

My journey with mindfulness has proven to inspire to me, which is why I decided to centre my research on the topic. All of the personal, professional and academic experiences related to mindfulness, creativity, and design education helped fuse my interests together and frame this thesis research topic and project.



## Research Approach

### The Research Topic

I am exploring mindfulness practice, as an ideation technique, to be used by design educators in order to discover whether it can influence a students' creative abilities in a positive manner to help them create stronger design outcomes and to investigate how the practice of mindfulness might be integrated into the design studies curriculum/ instruction as a framework. I also aim to discover the extent to which mindfulness practice is already being incorporated into design education by instructors.

### The Research Methods

#### SEMI-STRUCTURED INTERVIEWS

I set up semi-structured interviews with three different types of participants including mindfulness practitioners, design educators and an education specialist. Interviewees were recruited via email. The information collected during the interviews was used to survey areas that were connected with the research topic and were important to it.

#### EXPLORATORY WORKSHOP

The exploratory study took the form of a workshop and was chosen as a way to become informed about students' perception of mindfulness after engaging in four different mindfulness-related activities. To that end, the participants, who were recruited via a poster advertisement and in-class announcements, completed a questionnaire.



#### Creativity and Mindfulness

"By being mindfully aware of one's inner and outer world, one notices new things, which in turn helps one to become more creative and alive" (Dhiman, 2012).

### Theme-Finding: Interviews

#### MINDFULNESS-RELATED THEMES

As part of the "findings" section of this research project, I reported and analyzed different themes that emerged during interviews with mindfulness practitioners and an education specialist. These themes were related to what mindfulness is, how it is practiced, how it can be incorporated into a classroom setting and what, if any, are the relationships between mindfulness and creativity. The importance of examining these concepts was that it provided the foundation of a framework, as a visual aid, that may help design educators and students understand mindfulness and its related concepts. Below is a selection of themes derived from the interviews:

- » Mindfulness is important in the classroom because it helps students exercise attention
- » Mindfulness and creativity involve feeling happy and connected to oneself
- » In order to let ideas and experiences flow, there needs to be stillness and space
- » Creativity relates to certain attitudes of mindfulness (e.g. openness, interest, curiosity, etc.)
- » Mindfulness may help people become more aware of their creative block

#### IDEATION + CREATIVITY-RELATED THEMES

- » Stress, poor time management, lack of interest, among other, might lead to creative blocks
- » Mindfulness practice could help mitigate the effects of some of these experiences through cultivating attitudes such as beginner's mind
- » Mindfulness cannot help a student overcome certain reasons for a creative block directly, such as technical barriers and lack of time
- » Instructors could help students overcome creative blocks by exercising their own creative abilities, making suggestions to students to seek inspiration, putting them in collaborative group settings
- » Mindfulness practice showed resemblances to some of these tactics

## Theme-Finding: Exploratory Workshop

### THEMES DERIVED FROM WORKSHOP QUESTIONNAIRE

The activities seemed to help some participants gain new perspective and explore possibilities.

Mindfulness practice seemed to help some participants not overthink what they were doing while taking part in the creative process.

Some participants reported feeling less pressured to perform while practicing mindfulness and engaging in the creative process.

Mindfulness practice led some participants to creating visual explorations that they perceived as "unexpected".

According to some participants, more time would be preferred for mindfulness practice.

Most participants reported feeling mentally present, calm and/or focused after doing the mindfulness-related activities. For some, this may have led to creative insight.

Students felt at ease because the stakes were low in the workshop.

The activities inspired some participants to consider taking part in mindfulness practice beyond the workshop.

All participants reported that they experienced an increase in mental clarity after the activities.

All participants experienced creative insight in the final free-drawing activity.

More than half of the participants (62.5%) reported that it was easy to some degree to create visual explorations.

More than half of the participants (62.5%) reported that they experienced creative insight during the collage activity.

*Usually I am all over the place with my ideas and I feel that some ideas are not even worth writing down. But after the exercises, I was open to everything and I thought outside of the box.*

— Deprise Hutton

*I was satisfied with the results, but felt they were less about generating actual concrete ideas [and more about] my own 'brain' time where I was able to explore without any pressures.*

— Undisclosed Participant

## Possible Future Directions

### RESEARCH TOPICS

Investigating the influence of mindfulness practice on design instructors

Exploring students' short term and long term experiences of mindfulness practice in design education

Testing mindfulness practice in a real design classroom setting

Discovering the specific relationship between mindfulness, happiness, creativity and attention

Investigating how mindfulness practice impacts "critiques" in design education

Researching the timing of various mindfulness activities in the design classroom



