Running Head: THE PSYCHOLOGY OF INTERIOR DESIGN

THE PSYCHOLOGY OF INTERIOR DESIGN; PROMOTING WELLNESS IN INTERIOR SPACES

HOW DOES INTERIOR DESIGN AFFECT THE WELLBEING, PSYCHOLOGICALLY IN ALL SPACES?

by

NICOLE HANDZEL

A Thesis submitted in partial fulfillment of the requirements for the degree of

Master of Science in Management - Interior Architecture Concentration

at

Mount Ida College, Newton Massachusetts

May 2018

Final Thesis Approval

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This research paper is dedicated to Rose Botti-Salitsky and Stephanie McGoldrick for giving me the opportunity to follow my dreams of becoming an Interior Designer.

Nicole K. Handzel

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Lana Caron

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Thank you for helping me to succeed during this research process.

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Committee Member: Lana Caron

THE PSYCHOLOGY OF INTERIOR DESIGN

8

Abstract

This research was conducted to contribute to the body of knowledge. It reflects on how

interior designers can promote well-being by designing interior spaces. The findings in the

research paper illustrates how people are affected psychologically by their surroundings.

This paper will identify the research behind why psychology is important for interior

designers to consider during the design process. People's surroundings affect them in different

ways and designers have the power to promote their well-being through design, aesthetically and

functionally.

According to the research, "Home is more than a place to live, and interior designers are

more than mere arbiters of taste. They're psychologists of a different stripe" (Paul, 1998). There

is not enough awareness of how interior designers paint more than just a pretty picture and this

research will demonstrate how designers create spaces promoting the occupants well-being.

Psychology is important in interior design and this paper will identify the problems and

conclude recommendations for the well-being of the end users of the space.

Key Words: Wellbeing, Well, Psychology, Interior Architecture

Chapter One: Introduction

Introduction

How does interior design effect the wellbeing, psychologically in all spaces?

People spend 90% of their time indoors every day (Building Green, Inc, 2018). People are attracted to nature, but spend most of their time inside because of their day to day responsibilities. It is imperative for people to feel comfortable and happy like they do when they are outside in nature. Many designers try to bring the outside in for example by bringing in plants or orienting windows with views for people to see the beautiful outside world.

Since people spend most of their time indoors, the interiors can have a psychological effect on the human mind. Anything that a person comes in contact with affects them, which is why the interior of spaces should reflect nature and create a sense of wellness so people are happy where they are at all times in order to stay healthy physically and mentally.

Throughout the process, research will be conducted to identify the key factors on what people focus on and what makes them feel the way they do during their day to day lives.

The Motivation for the Study

The motivation for the study is derived from the hypothesis that people are effected by everything around them, including interiors of buildings. This is to contribute to the body of knowledge so the public will understand the importance of interior design and the work designers put into the spaces for their clients. This is important for people to realize because of the lack of knowledge the public has for this career.

The public will understand that the interiors of buildings have this effect on them and open their eyes to the importance of this subject. It will show that it can affect their wellbeing

and give them a way to understand and apply the recommendations to live a happy and healthy life.

The mind map below introduces the process of the research by understanding the words that are associated with the wellbeing of an individual. This was important for the researcher to be conscious of what aspects of wellness should be implemented into the design that contributes to the psychology of the individual.



Figure 1. Mind Map

Hypothesis

What promotes happiness? What promotes anger? Can this be the psychological effect of the interior of the space or is it the place itself and concerns only the purpose of the building? Why do people update their homes or workplaces? This paper will determine whether the interior of spaces has an effect on the wellness of the people who use the space. Why do people update their spaces? Trends are a strategy where people see new ideas and update spaces because that is what they like or they want to feel like they are a part of the growing environment. Interiors have an effect on people whether it is positive or negative. The obvious feeling that people would want to articulate is positivity. Promoting wellbeing in a space, particularly in a workplace environment to promote wellbeing in order to obtain happier and healthier employees, promote better productivity, and to create an environment people want to visit will be the main purpose for this research paper.

Significance of the Study

Identifying how people psychologically feel in a space will be beneficial because it will distinguish what people gravitate towards, how they want the interior to look, and how it will make them feel. By promoting the physical and psychological wellbeing of a person in spaces, it will encourage people to have a positive outlook on life and give them the opportunity to be happier and healthier.

Once the research is conducted and the question and hypothesis are answered, a website will then be created to educate people on the importance of the well-being of individuals in interiors of buildings.

Methods used in the Study

The methods that were used in this study include the analysis of case studies and the interviews of experts in design and psychology. During this method, this researcher would like

to obtain the knowledge of the similarities and differences from the designers' perspectives verses the psychology professionals'. It will determine whether psychology plays a role in design and whether designers should have a basis of knowledge in psychology.

Key Terms of the Study

Design, Psychology, Human Flourish

Visualizing Research

A questionnaire will be sent to volunteers who are validated experts in the field of Interior Design and Psychology to receive their opinion and to answer the questions in the survey. This research will create an understanding of validated information from the participants' experience, knowledge, and certifications. The information that is anticipated from this is that psychology plays an important role in interior design and it is imperative to identify key elements that will help distinguish how to create spaces that promote wellbeing.



Figure 2. Visual Thinking

The above picture is the visual thinking process of the hypothesis that psychology plays a major role in Interior Design. This picture displays the vision, goal, and the mission. The vision is how an Interior Designer creates a WELL environment that has a positive effect on the end user. WELL is a performance based system promoting, measuring, certifying, and monitoring the wellbeing of a building. The goal is to create this space and evoke the wellbeing within the space so the public understands how important a designers' role is to society. The mission suggests that Interior Designers should be obligated to design a space that that creates a happy and healthy environment.

Creating this atmosphere will promote wellbeing in the space that in the long-term creates a successful environment.

Chapter Two: Literature Review

Review of the Literature

This review of the literature discusses how interior design can affect the psychology of people within their workplace and how interior designers can successfully promote wellness. It is an overview of why interior design is important, what the psychological effects are, and how to promote wellness.

Interior Design

Often the public does not realize how much work and research an interior designer does to design the interior of a building or space. The NCIDQ, the board for Interior Design qualifications, defines interior design as "The Professional Interior Designer is qualified by education, experience, and examination to enhance the function and quality of interior spaces" (International Interior Design Association, 2018). Although this is one definition, many designers have their own definition, defining exactly what they do using words like *inspiration*, beauty, comfort, efficiency, economy, and durability. These are all words that surround what interior designers do on a daily basis.

There is not enough information on the amount of thought, research, and dedication designers take to ensure that it creates the best space for the end user aesthetically, but also functionally. Function is how people use and move around in the space so that it is the easiest of use for the clients. Unfortunately, people do not understand how interior design has an effect on people including the psychological aspect of how they move around the space, what they choose to bring into the space, and aesthetically of what it looks like. By studying the psychology of people in their spaces, this paper will identify what people should do to promote wellness in their lives.

Psychology

Psychology is generally not identified with interior design to the public, but this paper will illustrate how both terms go hand in hand and how interior designers study the psychology of their client in order to create the most successful space for them. "Aesthetic emotion, pure, and simple, the pleasure given us by certain lines and masses, and combinations of colors and sounds, is an absolutely sensational experience, and optical or auricular feeling that is primary, and not due to the repercussion backward of other sensations elsewhere consecutively aroused" (Hosoya, 2017). This source discusses and examines the aesthetic emotions and responses of interiors established by the experience and emotional measures taken by the psychologists. This resource will serve as a case study that examines the conceptual structure of aesthetic emotions.

Humans subconsciously veer towards nature. Today, architects and designers are more frequently looking at the psychological effects of humans to design the most successful spaces. "Now, with the rise of neuroscience for the built environment, biophilic design, environmental psychology, and "evidence-based design, particularly among the healthcare field, more specific understandings of mind, body, spirit designs are coming into being" (Green, 2012). This source will be used to identify why psychology is important for designers and architects to use this research in their designs for their clients.

Promote Wellness

The psychological effects of interiors can cause people to feel different emotions including positive or negative. This paper will identify why promoting wellness is important especially in the places people spend most of their time like their work places. In many cases, people do not feel comfortable where they work, but they do not even realize that it could be due to the functionality of the space.

There are different divisions that causes people to feel different emotions and the case study by Ryff and Keyes identifies the importance and satisfaction in happiness that was created by their surroundings because one division of environmental Mastery (Ryff & Keyes, 1995). By promoting wellness in interior spaces, it will allow the public to understand its importance and realize why interior designers are important to society.

There are many different case studies that discuss the importance of psychology and how it relates to wellness. Tying this to interiors explains the environmental impact of how people gravitate towards nature. By studying the environment and how people react to it explains how it is important to incorporate nature to the interior of spaces. Why do people display plants on their desks? Why do people build floor to ceiling picture windows so they can see the exterior setting? Why is it so expensive for people to buy a building with a beautiful view? This is supply and demand because the more people want something, the more it is going to cost and increase its worth.

These views are extremely desired because nature and the environment sets off a satisfied effect that people love and crave. By using this research in psychology, designers can give people what they want and promote wellness by activating these chemicals in the brain. People respond to great experiences and return for that happiness. If designers know exactly what makes people happy then they will create a space to promote happiness psychologically and functionally.

Two case studies will be outlined below, they will identify successful stories of WELL Certification. WELL Certification is important to the psychology of interior design because it outlines the wellness categories that should be focused on in order to sustain a healthy environment.

Case Study 1

Wellness is an important part of an individual's life. Not only considering the physical aspects, but also the mental aspect as well. The case study for the Well Certified Office at CBRE Group, Inc. headquarters in Los Angeles, California was one of the first commercial offices to be certified because they care about the health and wellbeing of their employees and clients.



Figure 3. CBRE Headquarters Los Angeles

CBRE is a commercial office firm who is the global leader in commercial real estate services and investment. They decided to build a well certified and LEED Gold building in 2013 to start a trend in continuing the structure for a healthy environment.

CBRE employees wanted to continue the new standard of health and wellbeing in offices rather than just in residential homes and hospitals. This successful story incorporates Delos' designs and innovative wellness features including, smart lighting systems, energy absorbing flooring, advanced air purification, water filtration, and antimicrobial coatings on all surfaces (CBRE, 2013). There were 50 health and wellness features that Delos provided to CBRE, which made them feel energized, focused, and productive. This then created a healthier way of working.

Each of the features contribute to the well-being of the individuals working in the space.

WELL has given them the opportunity to understand the aspects that should be focused on and to monitor after the project has been finished to ensure that each factor is working properly and is used in the correct way.

When speaking about the United States it is clear that California is usually at the forefront of the trends. This was groundbreaking and the start of a new beginning for commercial workplaces. This LEED Gold and Well Certified office features distinguishing aspects of WELL that creates a positive effect on the people who use the space. The seven different categories that were used were air, water, nourishment, light, fitness, comfort, mind, and innovation.

It is important to consider all of these categories not only to become certified, but because these are the aspects of life that people need to be healthy in order to be happy. This article states the wellbeing of a building and the people within it to measure their mental state due to the built environment. WELL has given them the opportunity to enhance the built environment to ensure that anyone who steps into the building has a positive experience and plays a role in their psychological state of their well-being.

Human flourishing is when a person achieves self-actualization and fulfillment in order to pursue their own efforts to live a happy and healthy lifestyle. It is important to ensure that people understand the benefits a building has to offer because of the high impact it has on people's everyday lives.

The case study for CBRE was a success story because of the high impact it has on the people who work in this environment illustrating their productivity and happy personalities when arriving at their workplace.

Case Study 2

Arup Boston is an independent firm who works with clients to tackle challenges in the world of design and the built environment. Arup decided to build their office space with WELL in mind because they care about their employees and clients' well-being in order to produce a higher quality of work life and personal life. It is important for employees to stay healthy and love the place they work because if they are in a negative state of mind then they will either not go into work or produce effortless work and it will show in the business.



Figure 4. Arup Boston: a

Arup constructed this building with WELL in mind when designing it. They understood that they were weak in some of the categories of the Well Certification including, nourishment so they decided it was time to make a difference in their employee's lives.

They moved from Cambridge to the 10th floor on 60 State Street in the Boston Common. They received the certification level achieving all of the preconditions and twenty-five out of sixty-two of the optimizations.



Figure 5. Arup Boston: b

Arup used many of the different features to fulfill the requirements of WELL including, healthy promoting upholstery and carpets, safe food preparation materials, adaptable spaces, and visual lighting design. These features were important to the design firm because these were the aspects the employees wanted to focus on to ensure their wellbeing.

The success that came with this story was "popular from end to end" (International Well Building Institute, 2017). This was an important development for the employees and their clients to give them the positive experience while being in their workplace. This is another successful outcome because of the measurement of people's mental capacity on a positive note and to suggest that they enjoy being at work because of the interior of the building.

The interior design of a space is extremely important to residential homes and hospitals so it is considered important in commercial workplaces especially since that is where people spend most of their lives. It is important to consider the wellbeing of a person and how their environment affects them. WELL is a measurable source that helps understand the capability the interiors of buildings have on people due to the success stories and the responses and reviews of the users.

Summary of the Literature

This paper will identify what interior design is, why it is important to research the psychology of people, and how to use this to promote wellness. This can also be compared to a video game where designers look into the psychology of people to find out what they like and influence the happiness it brings to make them enjoy the game and keep playing it. They look at the major chemicals in the brain because each play a different role in their happiness (Buckner, 2017). This is the same for interior designers, identifying what makes people happy, how they move around in specific spaces, and what encourages them to return.

Psychology is an important aspect of the design of interior spaces. It is then used to support the ideas of promoting wellbeing in the interior of spaces.

Business is also a key factor in this research because due to the subject of employees and clients, Human Resources are able to identify with them the differences they have in their mental state. Human resources will be able to measure and qualify that the WELL Certification truly has an effect from a before and after standpoint through the process of the renovations or new construction. Although WELL Certification and LEED show their success stories, it is important

for organizations to continue measuring the productivity and health and wellbeing of the employees to identify that this does have a positive effect on them.

Interior Designers and Psychologists play this important role in identifying and contributing to this positive mental and physical capacity and human resources has the opportunity to understand the research that encompasses the importance of people's health and the relationship. This is compared to interior design and the measures it takes to continue even after the construction is complete.

Chapter Three: Research Methods and Data Collection

Research Methods and Data Collection

This research paper will conduct interviews, given to validated psychologists and Interior Designers.

The study will be conducted in the steps listed below:

- 1. Receive approval from for project from the Mount Ida review board.
- 2. Qualify the participants of the interviews.
- 3. Conduct interviews with the participants.
 - a. Each interview will be conducted face to face, over the phone, or through email.

Setting:

1. The interviews will either be taken face to face in a quiet room, through email, or over the phone in a quiet place where the questions will be heard and answered to their best potential.



Figure 6. Interview Process

Above is a diagram that illustrates the steps that were taken in order to conduct the study. The interviews were sent out to designers and psychologists. Each interview was given the same steps and asked the same questions.

The first step, an introduction and a set of three questions that qualified the participant. In order to qualify, the professionals must have certifications, a licensed professional, and have been working in the field for ten or more years. This validated that the participants were considered experts and qualified to contribute to the research.

If they were qualified they were then given the three options of face to face, over the phone, or via email. Due to each professionals' busy schedules, each participant opted to take the survey over email. Once the results were received, then they were analyzed and compared between the designers and psychologists.

Constraints and Limitations

Difficulties with this study were determined when this researcher found it difficult to receive an abundance of results because professionals are extremely busy. This researcher had to find new ways to attract the professionals in participating in the study by sending reminder emails every week.

Researcher Bias

Researcher bias is based off of their profession. Each person has their own opinion of health and wellbeing of individuals or through interiors. This researcher believes that the hypothesis will be true because of the new research and trends that are in this society today.

Interviews with Industry Professionals: Design

Below are the questions for the Psychologist and Interior Designer during the interviews:

- 1. Please indicate your profession as an Interior Designer or a licensed Psychologist or Psychotherapist.
- 2. How many years have you been working in this profession?
- 3. Do you have any certifications?
- 4. How do you define wellness or wellbeing? Do you believe wellbeing is measureable?
- 5. Since psychology plays a role in how a person reacts to certain situations, do you think changing the interior workplaces could benefit their wellbeing? If so how?
- 6. How would you simulate an interior to provide pleasure and meaning to its inhabitants?

- 7. In terms of design, what do you think would be the best way to promote wellbeing in an environment?
- 8. What are the most beneficial factors a designer can focus on to stimulate happiness or a healthy environment?
- 9. Do you believe that behavioral mapping is a significant tool that can be used to determine how to space plan? i.e. Behavioral Mapping: tracking the behavior in a space over time to determine the individual movements throughout the space.
- 10. Would you like to add anything else that I have not asked?

Interviews with Industry Professionals: Psychology

Below are the questions for the Psychologist and Interior Designer during the interviews:

- 1. Please indicate your profession as an Interior Designer or a licensed Psychologist or Psychotherapist.
- 2. How many years have you been working in this profession?
- 3. Do you have any certifications?
- 4. How do you define wellness or wellbeing? Do you believe wellbeing is measureable?
- 5. Since psychology plays a role in how a person reacts to certain situations, do you think changing the interior workplaces could benefit their wellbeing? If so how?
- 6. How would you simulate an interior to provide pleasure and meaning to its inhabitants?
- 7. In terms of psychology, what do you think would be the best way to promote wellbeing in an environment?
- 8. What are the most beneficial factors a psychologist can focus on to stimulate happiness or a healthy environment?
- 9. Do you believe that behavioral mapping is a significant tool that can be used to determine how to space plan? i.e. Behavioral Mapping: tracking the behavior in a space over time to determine the individual movements throughout the space.
- 10. Would you like to add anything else that I have not asked?

Chapter Four: Data Analysis and Findings

Findings and Data Analysis

Introduction to interviews

The survey was emailed to ten professionals with different backgrounds. Six were sent to Interior Designers and four were sent to psychology professionals. Out of ten people, half answered and will be represented in the analysis of this research paper. There were two Interior Designers who participated and three psychology professionals. Each qualified by having a degree in their career, ten or more years of experience, and their identified their professional certifications.

Each participant responded to the first email with their qualification measures to ensure that they were qualified for the research. Once they were qualified they had the choice of meeting in person, talking over the phone, or through a link on email with Survey Monkey. All participants opted to take the survey monkey where they conducted their open-ended responses to seven questions and submitted them to be analyzed.

Response Analysis

Wellness and wellbeing are defined with two different definitions. Wellness is used as a whole; mind, body, and sole, and wellbeing is for the individual. It has been identified as a measureable scale from all 5 professionals, which consists of a person's happiness, vitality, calmness, optimism, self-awareness, self-acceptance, purpose, and connection. Wellness or wellbeing play an important role because it is made up of the components that stimulates meaning into an individual's life.

For this reason, WELL was created to encourage designers to use this method to give their clients the best design for their physical and mental state of health. WELL gives professionals the opportunity to use the healthy methods and acknowledge that these aspects are

being used. Both designers and psychology professionals contributed, stating that wellness or wellbeing are measurable and play an important role in an individual's life by determining their state of emotions.

Both designers and psychology professionals agree that changing an individual's workplaces can benefit their wellbeing. In a psychological aspect, mindfulness is a key factor that has contributed to the success of the interior design of spaces because it presents calmness, acceptance, the present moment, and peace. It is proven that spaces that acquire these attributes lower stress and create more productivity.

If designers understand how to incorporate mindful design, then this will allow for a healthy and better workplace that employees will want to be in because of the feeling and meaning it gives. There are different aspects of design that can be used throughout the space including natural lighting, views, artificial lighting, temperature, sound, and color. All of these factors have an effect on people which will increase their productivity in the workplace. Color is a powerful feature that stimulates individuals physically and psychologically. Blue is the color for tranquility where it offers intelligence, communication, logic, serenity, coolness, reflection, and calm.



Figure 7. Blue Pallet

People tend to associate nature and color together because they gravitate towards the tranquil scenery. Above is a picture that illustrates the calmness of the ocean not only because of the natural view, but because of the blue hues that offer this sense of serenity. Each color has an important feature that affects an individual in a positive or negative approach. Depending on the purpose of the space, depicts what colors should be used.

Human flourishing is considered when achieving self-actualization and fulfillment. This is connected to designing the interiors of spaces because it is what creates meaning within spaces. Individuals cherish meaning of possessions or places which stimulates their emotions. If the interior of a space creates this sense of meaning the end users will value it.

The flow or space planning also contributes to the overall wellbeing of a person. It is essential to realize how a person moves through a space and understand what that space is used for. The tool that is often used is behavioral mapping because it determines the path of the individuals to understand how to process the wayfinding that will be the most beneficial for the end users.

By promoting wellbeing, it can create the positive, physical and emotional happiness. To promote this sensation, professionals suggest, "a space that encourages creativity, productivity, and vitality." Natural lighting and views to foster calmness, creativity in the use of color, art features, and interesting furnishings. By promoting productivity individuals are intrigued by flexibility and control to encourage their safety and pleasure.

When designing for a space it is important to remember that not all organizations are able to remodel every three years. By keeping this in mind, creating a space that is flexible in the fact

that it will continue to process its timeless qualities. This will save people money and the opportunity to enjoy the design for a longer period.

On the psychological side of stimulating a healthy environment it entails three factors of pleasure, engagement, and meaning. Pleasure for creating the sense of happiness and meaning, engagement to identify the true meaning of the space, and meaning to provoke memories or hope and happiness. Comfort within the space is reflected onto the individual which supports their positive emotion and connection to the space. This is important because this connection is what gives people the feeling that they want to return. If a person wants to return to a building or space because of the feeling it gives them, then it is a successful design.

The comfort that people feel within spaces depends on the aesthetic appeal and meaning, but also the function and the space planning. It is important to understand the use of the space and who will be residing in it. This is because if a design was created and not correctly used, then what is the point in designing it if no one uses it the right way? Behavioral mapping is a tool that designers use to identify the necessary space, how people move around the space, and to consider the effect the environment has on the individuals. The flow through the space also depicts how it can flourish and create the awareness of human flourishing because it is designed specifically for the client's needs.

It is important for interior designers to consider the best possible designs for their clients and to ensure that the end product is used correctly so that people do not feel the discomfort. Education, communication, and honesty within the design phases will help for a more successful end product that will, as a design professional said, "encourage the intended behavior and increase overall wellbeing."

Key Findings

"When a space evokes the values of the person they will feel a sense of connection and happiness" (Interview participant). The wellbeing of an individual is based on their physical and psychological happiness. This can be measured by understanding the different aspects in the spaces that contribute to the positive features provided by the designers.

Individuals possess meaning, which stimulates their emotions, which then causes the act of human flourishing. It is imperative for designers to understand the psychology of spaces and the psychology of their end users because each space effects people differently. Human flourishing is the key element that determines the positive atmosphere that distinguishes the meaning of the space. This is where clients can identify with it and enjoy returning to the space.

Meaning promotes the sense of happiness, which provokes hope. When an individual is comfortable in a space, it encourages safety and pleasure, which most people value. WELL is a certification that contributes to the measureable features of the interior design to promote this sense of wellbeing for the end users. Contributing to the seven categories they offer ensure that each healthy aspect of an individual desires are included.

Chapter Five: Recommendations and Conclusions

Recommendations

Potential Impact of Research

The impact of this research will include the effects that Interior Designers have on their clients. Designers create spaces that have a psychological impact due to the colors, and space planning they decide to implement in the design. It is important for designers to understand what stimulates happiness in an individual's life because this will affect the outcome of the end product.

Recommendations

The recommendations would be considered in four different categories, including *interior design, psychology, wellness, and human flourishing*. By adding all of these categories to the design of a space, it will establish the wellness of the building and wellbeing of the individuals.

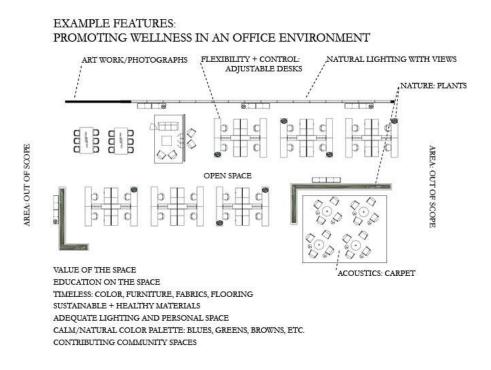


Figure 8. Wellbeing Floor Plan Example

Above is an example floor plan of a few of the features that were mentioned in the research paper. This concludes the aspects that an office designer can implement into the space to promote the wellbeing of the end users. This researcher will describe the four sections that are important for an interior designer to consider when promoting wellness in any space.

The interior design aspect would consider the entire scope of the work. While keeping these characteristics in mind, designers use the recommendations and create a beautiful and functional space by crafting the space planning, furniture, fabric, and color. Interior Designers have the ability to focus on these features to establish the wellbeing that the end users will recognize when working in the space.

The psychology of the space focuses on the art work and the photographs that evoke memories and meaning. This would include the history of the building or the tenants themselves who have worked there. This gives the occupants the opportunity to reminisce and evoke their memories they have made with the people around them and their environment.

Wellness is the third category focusing on the flexibility and control of the space, along with the nature and natural views that are present. In an office setting, people often do not get the privilege of adjusting their desks or room temperature to their preference, but designers have created flexible furniture, adjustable desks, and temperature control. This was created to promote the productivity within the workplace to make employees more comfortable where they work.

People spend most of their life indoors and at work, which gives designers the challenge to create an environment people want to return to everyday and imply the promotion of productivity because of the wellbeing of the employees and customers.

Human flourishing focuses on the comfort, meaning, and value of the space. It covers the actual individual of the space creating their sense of self-actualization and fulfillment in order to produce their positive well-being. When an individual seeks happiness, they emphasize on what aspects provoke their connection. The significance within the interior of the building reflects on the purpose and the feeling that it provides. Human flourishing is one of the most important factors to consider when designing spaces for people because it allows the designers to understand the true meaning of the building, which they can then relay on the design process to ensure that their needs are met.

To create this act of human flourishing, live plants or flowers, calming colors, and a space that does not feel claustrophobic were acknowledged by adding the planted flowers, specifying calming colors. Each color illuminates' different senses and emotions that are triggered through the mind. This is why color is a significant aspect of design because every decision depicts the psychological effects of the individuals using the space.

Lighting is another factor that plays an important role in the psychological aspect of a person's mind because of the different hues, indirect versus direct, and the amount of light that is illuminated. Lighting is unfortunately a last thought for some designers, but it should be executed with a great amount of thought in order for it to be successful for the design. By implementing these features, it allows for the individual to connect with the interior in a positive approach and encourage the wellbeing of the space through the flourishment of the individual.

The recommendations to promote wellbeing in interior spaces can be concluded by identifying who the end users are, determining their needs and wants, and designing a space where nature and a tranquil environment are implemented through space planning, color, feel,

flexibility, control, comfort, meaning, and value. By exercising all of the above qualities of a space it will emphasize the attributes that contribute to the wellbeing of the individuals.

Conclusions

Conclusion

The conclusions that were conducted throughout the process of this research include the significance in understanding what affects people psychologically. There is an abundance of buildings where designers use materials that either look good or are cost effective, but in order to be an effective designer, it must be acknowledged that certain features affect people in different ways.

These features include natural and artificial lighting, color, sustainability features, and space planning. The International WELL Building Institute is a measureable source that can help determine the features and categories that designers should focus on. The categories that are focused on in this source are air, water, nourishment, light, fitness, comfort, mind, and innovation. These are the important features to concentrate on because they help designers to understand what should be emphasized for the wellbeing of individuals.

This researcher would recommend that designers understand the psychological effects to promote wellbeing. By stimulating happiness in people's lives, it is essential to recognize how people react to the meaning of possessions and spaces. This can be created by understanding the client's needs and developing a plan to emphasize the features that will enhance their wellbeing. Human flourishing is another aspect of self-actualization and fulfillment. This is what brings meaning to the space, giving the users a positive experience.

Conclusions Reached: New Findings

Further research and findings would be pursued through expanding on color and lighting. These are two significant factors that have depth to them in order to identify the specific relations to the psychology of each feature. The time allotted contributed a broad reflection of the findings that color and lighting have an effect psychologically on individuals. Additional research would also be considered on the topic of psychology and identifying exactly why a person feels and acts the way they do due to their environment.

WELL is also a topic that would be dissected more intricately because of the many features and categories that it covers. It is important to understand the psychological aspect of an individual, but also what initializes their healthy lifestyle. WELL ensures that they are in a safe and healthy environment.

The findings that this researcher resulted in, answers the hypothesis that Interior

Designers do have a psychological effect on the end users and it is important to understand this
to protect and promote the wellbeing of the individuals. The public still today does not truly
understand what an interior designer does, but contributing to the body of knowledge to help
people acknowledge that they are important to society is a step in creating the reputation that
they deserve.

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Image Sources

Figure 1. Mind Map

By: Nicole Handzel

Figure 2. Visual Thinking

By: Nicole Handzel

Figure 3. CBRE Headquarters Los Angeles

https://www.wellcertified.com/en/projects/cbre-headquarters

Figure 4. Arup Boston: a

https://www.wellcertified.com/en/article-subcategory/well-projects

Figure 5. Arup Boston: b

https://www.wellcertified.com/en/article-subcategory/well-projects

Figure 6. Interview Process

By: Nicole Handzel

Figure 7. Blue Pallet

https://www.design-seeds.com/wander/sea/sea-blues-3/

Figure 8. Wellbeing Floor Plan Example

By: Nicole Handzel

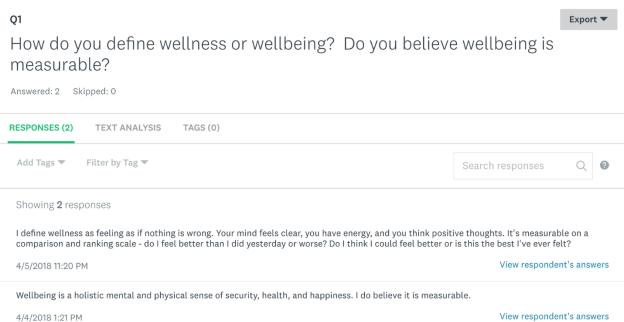
Appendices

Appendix A: Interview Questions

- 1. Please indicate your profession as an Interior Designer or a licensed Psychologist or Psychotherapist.
- 2. How many years have you been working in this profession?
- 3. Do you have any certifications?
- 4. How do you define wellness or wellbeing? Do you believe wellbeing is measureable?
- 5. Since psychology plays a role in how a person reacts to certain situations, do you think changing the interior workplaces could benefit their wellbeing? If so how?
- 6. How would you simulate an interior to provide pleasure and meaning to its inhabitants?
- 7. In terms of design, what do you think would be the best way to promote wellbeing in an environment?
 - In terms of psychology, what do you think would be the best way to promote wellbeing in an environment?
- 8. What are the most beneficial factors a designer can focus on to stimulate happiness or a healthy environment?
 - What are the most beneficial factors a psychologist can focus on to stimulate happiness or a healthy environment?
- 9. Do you believe that behavioral mapping is a significant tool that can be used to determine how to space plan? i.e. Behavioral Mapping: tracking the behavior in a space over time to determine the individual movements throughout the space.
- 10. Would you like to add anything else that I have not asked?

Appendix B: Interview Question Answers

Design

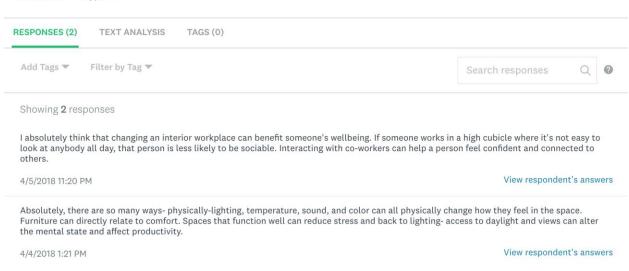


02

Export •

Since psychology plays a role in how a person reacts to certain situations, do you think changing the interior workplaces could benefit their wellbeing? If so how?

Answered: 2 Skipped: 0



03

Export •

How would you simulate an interior to provide pleasure and meaning to its inhabitants?

Answered: 2 Skipped: 0



This is a bit hard to respond to as pleasure and meaning could be different depending on the person-generally I think that adequately lit spaces that provide connection to the outdoors and are designed in a safe and intuitive manner can be pleasurable and meaningful and spaces that are designed around occupant or visitor needs instead of just for the sake of design

4/4/2018 1:21 PM

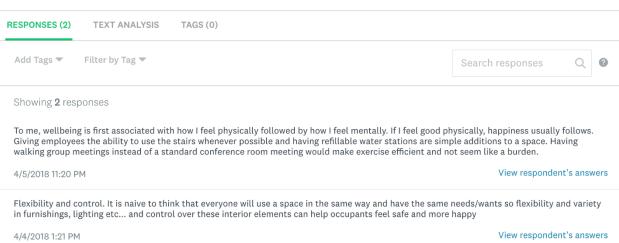
View respondent's answers

Q4

Export •

In terms of design, what do you think would be the best way to promote wellbeing in an environment?

Answered: 2 Skipped: 0

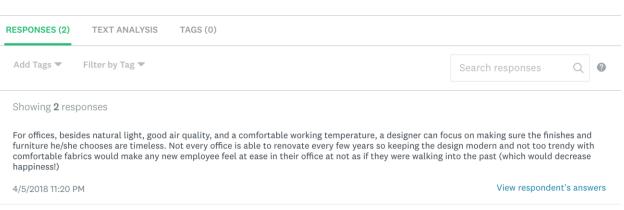


Q5

Export •

What are the most beneficial factors a designer can focus on to stimulate happiness or a healthy environment?

Answered: 2 Skipped: 0



Access to nature or views of the outside, lighting, good acoustics, spatial and furniture options, interior elements that allow for ease of movement throughout the space

4/4/2018 1:21 PM

View respondent's answers

Q6

4/4/2018 1:21 PM

Export •

View respondent's answers

Do you believe that behavioral mapping is a significant tool that can be used to determine how to space plan? i.e. Behavioral Mapping: tracking the behavior in a space over time to determine the individual movements throughout the space.

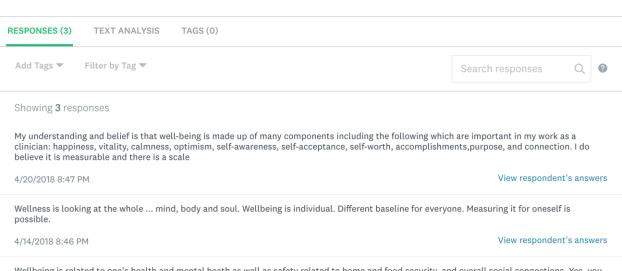
Answered: 2 Skipped: 0 **RESPONSES (2) TEXT ANALYSIS** TAGS (0) Add Tags ▼ Filter by Tag ▼ Q 0 Search responses Showing 2 responses Absolutely. People in my office often complain about the lack of conference space but our huge conference room is seldom used because nobody wants to have a quiet meeting in such a huge room. Tracking behavior and movements can tell a company what rooms are being used the most so the space plan can adjust accordingly. Oftentimes clients will tell us what they THINK they want and need in just a number (five offices, 50 workstations, etc.) without actually considering the effect on their environment (i.e. those five offices are going to block all of the windows). View respondent's answers 4/5/2018 11:20 PM Absolutely 4/4/2018 1:21 PM View respondent's answers **Q7** Export • Would you like to add anything else that I have not asked? Answered: 2 Skipped: 0 RESPONSES (2) TEXT ANALYSIS TAGS (0) Add Tags ▼ Filter by Tag ▼ Search responses Q Showing 2 responses While the happiness of employees and their overall wellbeing is absolutely driven by how a space is designed, the design has to be used correctly (as it was intended) by the end-user for it to fully work. If an open office is too loud for people so they have to wear noise-canceling headphones, what is the point? I design a lot of offices where I do the punch-list and leave without ever talking to the end-user about how important it is to educate the employees on how to use the space. Open communication and honestly with the client during the design phase would very much help encourage intended behavior and increase overall wellbeing. View respondent's answers 4/5/2018 11:20 PM Nope

Export •

Psychology

How do you define wellness or wellbeing? Do you believe wellbeing is measureable?

Answered: 3 Skipped: 0



Wellbeing is related to one's health and mental heath as well as safety related to home and food security, and overall social connections. Yes, you can measure wellbeing.

4/12/2018 9:50 PM View respondent's answers

Q2

Export •

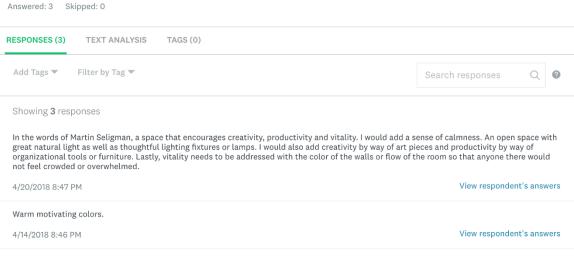
Since psychology plays a role in how a person reacts to certain situations, do you think changing the interior workplaces could benefit their wellbeing? If so how?

Answered: 3 Skipped: 0 RESPONSES (3) TEXT ANALYSIS Add Tags ▼ Filter by Tag ▼ Q 0 Search responses Showing 3 responses Yes, this idea is evidenced in the intersection of the 7 attitudinal foundations of mindfulness and interior design concepts. For many, to be mindful is an attitude of calm, acceptance, present moment, and peace. Mindful interior design has become a way for someone to experience well-being in a physical space. Changing interior work space to encourage well-being could have a reciprocal effect. Environments that inspire calmness can lower stress and create a more productive work space as well as create an ongoing sense of well being for the worker. View respondent's answers Yes. Having an inviting workplace will be most beneficial to the worker. View respondent's answers yes! Furniture style, spacing of furniture, color of walls, floor, art, light and access to outside in views or actual space all impact well being. 4/12/2018 9:50 PM View respondent's answers Q3 Export ▼

How would you simulate an interior to provide pleasure and meaning to its inhabitants?

Answered: 3 Skipped: 0 **RESPONSES (3) TEXT ANALYSIS** TAGS (0) Add Tags ▼ Filter by Tag ▼ Search responses Showing 3 responses Lighting and color, in my opinion, provide a sense of pleasure to inhabitants because it can evoke a sense of emotion. Meaning on the other hand is most often seen in how the space is used. Can the person working there move easily? Does the room have a flow to it or is it claustrophobic? A live plant or flowers are essential for my work spaces because it provides life and meaning/connection. View respondent's answers 4/20/2018 8:47 PM Respecting the space and creating a space that is inviting shows that you respect the work that is being accomplished there. Using colors to elicit warmth and motivation. 4/14/2018 8:46 PM View respondent's answers Whether office or community space, I have included the inhabitants or a sample of them in the selection of furniture (color, materials) and art. While wall color, floor tiles and lighting are less available to them to choose, the tone of the space can shift or change based on what they choose. We have use client art and and it professionally framed to have meaning in spaces as well. View respondent's answers 4/12/2018 9:50 PM

In terms of psychology, what do you think would be the best way to promote wellbeing in an environment?



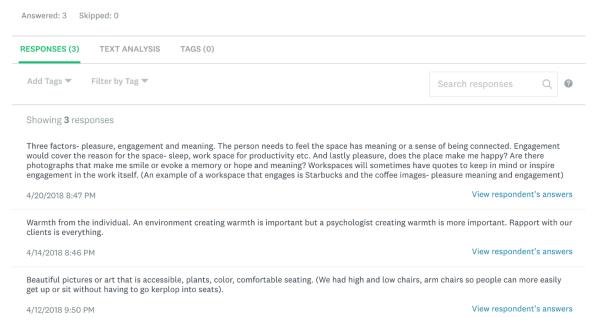
Space needs to feel safe and have a welcoming tone. I have worked with architects and designers in supportive housing to be sure that the lighting and community rooms and offices first feel safe for all, with glass windows where possible, good lighting, windows to outside and where there is comfortable and accessible seating for tenants of all ages and physical abilities. We have used great colors that are warm and happy, easy to clean but also homey. We have also brought in plants and encouraged volunteers to care for them. When possible, we put up pictures of tenants in nice frames . Finally, we honored history of buildings by naming rooms or wings based on history of the building (which was often an old school or connected to a church or convent). Our tenants loved seeing pictures of themselves or neighbors and appreciated being a part of the history.

4/12/2018 9:50 PM View respondent's answers

Answered: 3 Skipped: 0

Q5 Export ▼

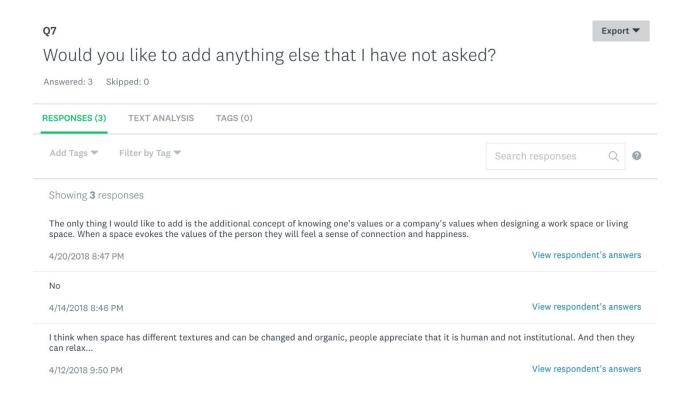
What are the most beneficial factors a psychologist can focus on to stimulate happiness or a healthy environment?



Q6 Export

Do you believe that behavioral mapping is a significant tool that can be used to determine how to space plan? i.e. Behavioral Mapping: tracking the behavior in a space over time to determine the individual movements throughout the space.

RESPONSES (3) TEXT ANALYSIS TAGS (0) Add Tags ▼ Filter by Tag ▼ Search responses Showing 3 responses Absolutely. Behavioral mapping can also make meaning out of how the person best works. There might be a certain movement in the space thatd epicts the perosn is in flow and flourishing. It definitely adds to the concept of flow. Mihaly Csikszentmihalyi discusses this concept in a few videos online. I encourage people to watch his explanation when understanding their own personal flow and sense of happiness. View respondent's answers 4/20/2018 8:47 PM Unknown View respondent's answers 4/14/2018 8:46 PM A tool, but not significant. 4/12/2018 9:50 PM View respondent's answers



Appendix C: MIC-IRB

Application Form



Mount Ida College Institutional Review Board

MIC-IRB Application Form for Research Involving Human Subjects

The Institutional Review Board is commissioned by Mount Ida College to protect human subjects involved in research conducted under the college's auspices. Persons planning to conduct research involving human participants must complete an MIC–IRB Research Application Form and secure the written approval of

Exemption (Exemption Decision: 2 days)

the board prior to the onset of the research. For research projects that may be exempt from oversight (examples of which are listed in the MIC-IRB Policies and Procedures Manual) or that involve minimal risk or a minor change to a previously approved project, application submissions may include a request for exemption or expedited review.

Basic Information:
Title of Study:
The Psychology of Interior Design: Promoting Wellbeing.
Principal Investigator, with Position and School Affiliation:
Nicole Handzel, LEED Green Associate
Researcher Graduate Interior Architecture + Design Student, Mount Ida College nhandzel@mountida.edu
Co-Investigator(s), with Position and School Affiliation (for students, include advisor):
Rose Botti-Salitsky Ph.D., ASID,IIDA,NCIDQ Professor Department Chair School of Design suite 122c Interior Architecture + Design Undergraduate, Graduate Programs <u>rbottisalitsky@mountida.edu</u>
Jennifer Granquist, LMHC Assistant Director of Counseling. The Center for Wellness Services Mount Ida College igranquist@mountida.edu
Lana B. Caron, Visiting Faculty School of Business Mount Ida College <u>lcaron@mountida.edu</u>
Date Submitted: March 5, 2018 New Proposal or Resubmitted Proposal?
Submission Request: Check the appropriate box below.
☐ Standard Review (Review time: up to 4 weeks)
☐ Expedited Review (Expedition Decision: 2 days; Review time: up to 2 weeks)

Research Project Information:

Brief Description:

The reason for the study is to prove that interior spaces have a psychological impact on people. This includes the wellbeing of people mentally and physically.

The goal of this study is to interview qualified experts in psychology and interior designers to determine if this hypothesis is plausible. This will potentially give people the necessary resources to ensure that the spaces they reside in are capable of promoting their wellbeing. This researcher will conduct a study by interviewing qualified psychologists and designers. This researcher hopes to determine how and why the aesthetic and function of a space can cause certain emotions. It will also determine whether a designer can manipulate the wellbeing of a person who is in the interior of a space.

Once the research is recorded and analyzed, this researcher will indicate potential recommendations to the problems.

Dates of study:

February 26, 2018: Outline of research

March 5, 2018: Build research instrument

March 8, 2018: IRB form

March 9, 2018: Work on Chapters 1 and 2 of research paper

March 12, 2018: IRB approval – reach out to experts and send out survey on social media

March 16, 2018: Collect Data

March 19, 2018: Chapters 1+2 due

March 26, 2018: Chapter 3 due

April 2, 2018: Website half done

April 13, 2018: Chapters 4+5 due

April 20, 2018: Edits due

April 27, 2018: Website due

April 29, 2018: Complete

Location(s) of study:

Will be traveling to Mount Ida College. The researcher will also be reaching out via phone and email.

Methodology and Procedures:

The research methods that will be used are quantitative and qualitative from the results from the interviews. The interviews will be conducted over the phone, in person at Mount Ida, or through email. The research collected will be analyzed and determined if the hypothesis is correct, this would conclude that the interior of spaces affect the wellbeing of individuals.

Intentions for Use:

The intension of this research is for the public to understand that it is important to consider every aspect of a person's life and wellbeing when designing interior spaces.

Information Pertaining to Human Subjects:

If applicable, please detail the involvement of **vulnerable persons**, as defined in the Code of Federal Regulations Title 45 CFR 46, and on page two (2) of the MIC-IRB Policy Manual:

N/A

Please explain how subjects will be **selected** and **dealt with** as the study proceeds:

N/A

Please clarify and address any **benefits** and **risks** for the human subjects involved:

N/A

Accompanying Materials:

Interview Questions:

- 1. Please indicate your profession as an Interior Designer or a licensed Psychologist or Psychotherapist.
- 2. How many years have you been working in this profession?
- 3. Do you have any certifications?
- 4. How do you define wellness or wellbeing? Do you believe wellbeing is measureable?
- 5. Since psychology plays a role in how a person reacts to certain situations, do you think changing the interior workplaces could benefit their wellbeing? If so how?
- 6. How would you simulate an interior to provide pleasure and meaning to its inhabitants?
- 7. In terms of design, what do you think would be the best way to promote wellbeing in an environment?
 - In terms of psychology, what do you think would be the best way to promote wellbeing in an environment?
- 8. What are the most beneficial factors a designer can focus on to stimulate happiness or a healthy environment?

What are the most beneficial factors a psychologist can focus on to stimulate happiness or a healthy environment?

- 9. Do you believe that behavioral mapping is a significant tool that can be used to determine how to space plan? i.e. Behavioral Mapping: tracking the behavior in a space over time to determine the individual movements throughout the space.
- 10. Would you like to add anything else that I have not asked?

MIC-IRB Policies and Procedures for Review:

Upon submission, the MIC-IRB will review the research proposal and respond with one of the following decisions.

The timetable for review is as follows. Standard Reviews take up to 4 weeks for the board to develop suggestions and conclusions. Expedited Review decisions are made within two days of proposal submission. If deemed appropriate for expedited review, the board will develop suggestions and conclusions within 2 weeks of the proposal's submission. For project proposals submitted for exempt status, exemption decision will be made within 2 days of submission.

The focus of the MIC-IRB review process is an evaluation of how human subjects are protected throughout the research process. Please be as clear as possible in explaining how surveys, observations, presentations, and other aspects of your research will manage risks to human subjects, be equitable in dealing with subjects, provide informed consent, and protect the privacy of subjects. This will help the MIC-IRB act quickly in helping you proceed in your research endeavor.

For further details on the MIC-IRB, please consult its Policies and Procedures Manual available online at the Mount Ida College VCC.

Bottom of Form